













OVERSEAS NEWS

Ceasefire in S. Lebanon reported

PALESTINIAN guerrilla forces in South Lebanon began a cease-fire at 5 p.m. today, a high Palestine Liberation Organization official said. Earlier today both Palestinian and Lebanese right-wing sources said an immediate cease-fire had been agreed in principle by the Palestinians and the Israeli-backed right-wingers, to end their ten-month border war. But a right-wing official said formal announcement of a cease-fire, and its implementation, awaited a U.S. requested report...

An Israeli State television report said that an apparently imminent cease-fire agreement would result in an Israeli withdrawal from positions "they are supposed to be holding just inside Lebanon" in return for Palestinian concessions in the area. Israeli officials in Jerusalem declined comment on the cease-fire report, and, according to eyewitnesses, heavy shelling between Israeli and Palestinian positions continued across the border to night. On Tel Aviv Correspondent said: Meanwhile the Israeli Government was reported here to have rejected a U.S. appeal to withdraw troops which have established positions across the border. The Tel Aviv afternoon newspaper Maariv said that a request had been conveyed by Mr. Philip Habib, Assistant Secretary of State, to Mr. Simcha Diniz, Israeli Ambassador to the U.S. He sought guidance from Mr. Moshe Dayan, Israeli Foreign Minister, currently in New York for the opening of the UN General Assembly, who replied that if Israel pulled back any troops from the south of the Lebanon the Palestinians would increase their strength in the area, according to the newspaper's Washington correspondent. In Jerusalem officials at the Israeli Foreign Ministry denied any knowledge of such an appeal. Last night and this morning Palestinian rockets hit the towns of Safed and Kyriat Shmona, injuring three people. An officer was killed and three other soldiers seriously wounded on Friday night when an Israeli patrol was ambushed by guerrillas. Confirming the incident, a spokesman said that it had happened inside Israeli-held territory—in contrast to a Palestinian claim that the

clash had been near Meri, than four miles inside border. Heavy artillery fire directed from Israeli post against Katyisha rockets. Mr. Menahem Begin, Israeli Premier, is expected on a collision course with the Government's "Gush Emunim" plan, the religious movement which has been the Government for many years to set up 11 new settlements in the West Bank before the end of the winter. The Premier and Mr. Sharon, the Minister of Culture, who heads the Government's Settlements Committee with representatives movement this morning. They made it clear that the Government will not account permit settlement without the approval of the settlement committee or at times other than determined by it.

Somalis renew Ogaden offensive

HEAVY fighting between Somali troops and Somalis was reported around Harar—one of Ethiopia's major strongholds north Ogaden region, now entirely in the insurgents' hands. A communique broadened the offensive, saying that insurgents shot down Ethiopian F5 fighter, today, about 250 miles south of Addis Ababa. The communique said members of the Western Liberation Front had killed Ethiopian troops, and heavy losses were inflicted on the Ethiopian army. Ethiopian headquarters today reported that thousands of Government soldiers are believed to have massed to repel Somali. After more than a week, the Somali command appeared to indicate the Somali offensive was pressing westward from which they claim to have captured at the beginning of the month. Jijiga, Harar and Dire Dawa, are the main Ethiopian defence north of the Ogaden. Somali insurgents claim to have captured 50 per cent of the Ogaden territory. UPI Reuter adds from Harar that Ethiopian guerrillas won a battle on Friday against Ethiopian Government forces north of Asmara, the capital of the Sudanese-ruled Eritrea. The paper said the guerrillas killed Ethiopian soldiers, destroyed tanks and drove a 300 Government force back to Asmara, the paper said.

Communists attack Socialists after French Left talks fail

THE FRENCH Communist Party this week-end launched a heavy propaganda campaign to throw upon the Socialists the entire blame for the breakdown of talks last week to update the common programme of the Left, and label the Socialist Party as the betrayer of the working class. Socialist headquarters for its part teleaxed its main branches repeating that Communists' intransigence in trying to extend the original nationalisation programme was to blame for the collapse of the negotiations, which were supposed to draw up a revised joint manifesto for the general election of March next year. While the Socialist leader, Francois Mitterrand, remained silent, and refused to meet St. Georges Marchais in the sort of televised, slanging match

which the Left has indulged in over the past two weeks, other Socialist leaders did not hesitate to suggest that the Communists had deliberately sabotaged the discussions. But the running in the propaganda war was being made by the Communists, with their stronger organisation, and substantial trade union support. Around 100 workers from the Renault branch of the 2.5m strong Communist-led CGT union took up stations outside the Socialist headquarters in Paris in a "spontaneous" demonstration of anger at Socialist attitudes. Meanwhile, Communist militants were convened to meetings in 13 cities to have their party viewpoint explained—the Social-

ists say these meetings were called before the breakdown of the talks. The Communist Central Committee, headed by Georges Marchais, immediately published to the Socialist leadership going over its grievances and accusing it of trying to wreck not only the nationalisation proposals in the 1972 programme but a whole string of social, economic and industrial democracy policies as well. Reuter adds: The Left today did less well than expected in indirect elections to the Senate, taking only 10 extra seats—half the number forecast by some political commentators. The vote was an electoral college of National Assembly deputies and local government councillors. 115 of the seats were up for election.

Moscow optimism on SALT

THE JOINT U.S.-Soviet communique on the latest round in the Strategic Arms Limitation Talks today gave the most optimistic assessment of progress in the talks since negotiations between the Soviets and the Carter administration began. The communique, which was carried here by the Soviet news agency Tass, said that progress was achieved in bringing the two sides closer together, and although areas of disagreement remain, both sides consider it necessary to intensify their efforts to ensure progress in U.S.-Soviet relations. Apparently indicating some Soviet success in the talks, the communique said that both sides expressed their desire for the stable development of relations on the basis of "existing treaties and agreements." The Soviets have said that any new SALT agreement must be negotiated on the basis of the 1974 Vladivostok accord.

Italy radicals congress fails to threaten PCI

A WEEK-END congress of the Italian radical left failed to threaten the Communist Party (PCI) as an important test case. At a time when the Communist Party is raising growing confidence with its base as a result of its electoral "challenge" from the Left. In local terms, this northern city was still under considerable tension to-night because of fears of a clash between the militant fringes of the extreme Left-wing groups here, and the human Catholic authorities, including the Eucharistic Congress. Tight security guarded the city's Cathedral Square—Piazza Maggiore—which during the last hours was transformed into a dormitory and one of the main rallying points for the 15,000 or so so-called Left-wing independents gathered here for their first "congress against repression" in Italy.

Bonn package criticised

AMID reports that West Germany is still coming under criticism from its partners at the International Monetary Fund annual meeting for not doing enough to stimulate economic recovery, Bonn has been handed a similar, though less judgement on its recent package by one of the most influential of domestic commentators, the Munich-based Ifo Institute of economic research. Although applauding the intentions of the cabinet's DMI (Dollars) package of measures to support growth in 1978, the Institute writes in its monthly report that the scope of the measures is too small. At the same time, it defends the German Government against some of the accusations made against it abroad by observing that "it would be wrong to believe that the so-called problem countries can overcome their own difficulties by stronger West German expansion alone. Very growth in the Federal Republic can only ease their problems and solve them." Ifo's differences with the Gov-

Teng hard line over USSR

MR. TENG Hsiao-ting, China's deputy premier, today told a group of visiting West German officials there was no chance of a warming up in Sino-Soviet relations for a generation or more, sources close to the group reported. Mr. Teng was speaking during a two-hour meeting with the defence committee chairman of the Bundestag (German parliament) in Bonn. He was accompanied by other members of the group who were critical of West German military men, two of whom had held high command posts in NATO. He said that the Soviet Union was still under considerable tension to-night because of fears of a clash between the militant fringes of the extreme Left-wing groups here, and the human Catholic authorities, including the Eucharistic Congress. Tight security guarded the city's Cathedral Square—Piazza Maggiore—which during the last hours was transformed into a dormitory and one of the main rallying points for the 15,000 or so so-called Left-wing independents gathered here for their first "congress against repression" in Italy.

Mourners halted at S. African funeral

THOUSANDS of mourners gathered on the otherwise deserted little town today for a mass funeral for Mr. Steve Biko the South African black leader who died in police detention two weeks ago. Mr. Biko was the most influential young leaders in the country. The crowds gathered from the early hours of the morning at a sports ground on the edge of the town near the black township where Biko spent the last four years of his life in banishment. An estimated 12,000 to 15,000 attended, including black and white churchmen, white politicians and, significantly, foreign diplomats representing the major Western powers. However, intended mourners were prevented from attending by a nationwide police operation to

Bonn package criticised

ernment programme, which is intended to support a growth rate of 4.5 per cent in real terms next year, arise over the extent and the form of its personal tax cut proposals. It must be doubted whether the package will be sufficient to raise aggregate demand in sufficient quantities. If it goes on to point out that part of the effect of these tax-cutting measures will be cancelled out by the planned increase in value added tax on January 1, the postponement of the east pension increase and by the failure of long-dated savings maturities. "Because the problem is not one of merely fitting a short-term cap in demand, any measures which improve the prospects for medium-term growth ought to be given more significance in the framework of the Government's programme. The programme places too little accent in this direction."

Swiss reject constitution amendments

THREE proposals which have led to amendments in Swiss constitution were rejected in a national referendum this week-end. The motions fail to obtain the necessary two-thirds majority of individual cantonal votes. The most controversial proposals was one to be submitted in a national referendum this week-end. The motions fail to obtain the necessary two-thirds majority of individual cantonal votes. The most controversial proposals was one to be submitted in a national referendum this week-end. The motions fail to obtain the necessary two-thirds majority of individual cantonal votes.

Vertical advertisements on the right edge of the page, including 'Kong hi over tex', 'Polar order', 'Economic in', 'Dfls. 60,000,000', 'MORRIS INTER', 'TELEX £30 P', and 'November 1, 1977'.

Advertisement for NMB Bank. Features a large image of a cheese wheel. Text: 'Dutch imports: Dfl. 88,060 million. Dutch exports: Dfl. 87,140 million. Have a piece of our cheese. Use the inside bank: NMB Bank. Holland's prosperity provides a big chunk for everybody... NMB Bank, PO. Box 1800, Amsterdam. Telephone: 3120-543911, telex: 1492 ANMB NL.

Advertisement for Jujo Paper Co., Ltd. Tokyo. 'DM 60,000,000 5 3/4% Convertible Bonds due 1987'. Includes a grid of bank names: WESTDEUTSCHE LANDESBANK GIROZENTRALE, THE NIKKO SECURITIES CO., (EUROPE) LTD., BANQUE BRUXELLES LAMBERT S.A., BAYERISCHE VEREINSBANK, THE INDUSTRIAL BANK OF JAPAN (LUXEMBOURG) S.A., SMITH BARNEY, HARRIS UPHAM & CO. Incorporated, SWISS BANK CORPORATION (OVERSEAS) Limited, S. G. WARBURG & CO. LTD., and a list of international banks.

Handwritten Arabic text at the bottom of the page: 'هذه امانة الله'



### Hong Kong hits at EEC over textiles

LIP BOWRING

HONG KONG, Sept. 25

Y serious concern with the EEC's textile quotas will simply be asking for equal and fair treatment for Hong Kong, and that it should not be singled out of the "sacrifices" which EEC negotiator Mr. Trao Van Thinh recently suggested it would have to accept.

Tran is understood to have been thinking aloud about cut-backs of the order of 15 to 20 per cent. in quotas for sensitive items from Hong Kong from 1978 actual performance levels. This could mean an actual fall of next year of Hong Kong sales of these products to the EEC as much as 30 per cent. from 1976 levels.

### Poland ship order talks

By Ian Hargreaves

TALKS CONTINUE this week on the protracted effort by British shipbuilders to win a £130m. shipbuilding order from Poland. The specific timetable for talks is far from clear, but it is possible that a Polish negotiating team will be in London this week. The order is seen as crucial for the order-starved and recently nationalised shipbuilding industry, but this very fact is enabling the Poles to drive a very hard bargain on the financing terms for the order.

Earlier British shipbuilders had been hopeful that the deal will not anyway be able to be settled during September, but in the last few weeks negotiations have become tougher and it is still not certain that the order will be won.

### Attracts

ortium of 15 Japanese controlled equipment under licence. The agreement also gives Caser the exclusive market to help the Vietnamese deal from Japan, Nihon sorted, according to

Quoting financial Japanese economic aid loans will be re- five years with a 3-2 period. Vietnam is to buy about 130,000 el from Japan between 1 and January.

um Fechney, a unit of Igno-Kuhlman (FIJK) ad offered technical for the projected aluminium electroly- for Perkins Engines in Iran is at Vera-Cruz, Mexico. to be operated by Iran Tractor vestment for the plant Manufacturing. Company ted at \$500m. with (ITMCO) which also holds a licence for the manufacture of 30,000 diesel engines a year. are said to have ITMCO is a wholly government- ular assistance.

H. Ernault-Somma, ch makers of machine- 1 it had concluded a production of Perkins three- and commercial co- cylinder and four-cylinder en- agreement with Caser, whereby the latter will a large manufacturing complex re certain numerically- in Tabriz.

### World Economic Indicators

RETAIL PRICE INDICES		% change over earlier year		Index base year
Aug. 77	July 77	June 77	Aug. 77	year
144.5	144.9	145.4	139.3	+ 3.7 1970=100
183.1	182.7	182.3	171.4	+ 6.8 1969=100
184.7	183.8	183.6	158.5	+16.5 1974=100
123.18	122.79	122.42	114.97	+ 7.15 1975=100
182.3	182.5	181.8	171.9	+ 6.0 1967=100
July 77	June 77	May 77	July 77	year
116.1	118.4	119.0	108.8	+ 8.5 1975=100
118.9	118.0	116.9	98.9	+20.2 1976=100
184.1	182.5	181.1	167.2	+10.1 1970=100

Dfls. 60,000,000.—  
7½% Guaranteed Bearer Notes 1971 due 1975/1978 of  
HILIP MORRIS INTERNATIONAL CAPITAL N.V.

Third annual redemption instalment (Redemption Group No. 3 and No. 4 fell due on November 1, 1975 and November 1, 1976 resp.).

As provided in the Terms and Conditions Redemption Group No. 1, amounting to Dfls. 15,000,000.—, has been drawn for redemption on November 1, 1977 and consequently the Note which bears number 1 and all Notes bearing a number which is 4, or a multiple of 4, plus 1 are payable as from November 1, 1977 at

Algemene Bank Nederland N.V. (Central Paying Agent)  
Amsterdam-Rotterdam Bank N.V. Bank Mees & Hope NV  
Piersea, Helderling & Pierson N.V. in Amsterdam;  
Manufacturers Hanover Limited in London;  
Algemene Bank Nederland (Genève) S.A. in Geneva;  
Algemene Bank Nederland in der Schweiz AG in Zurich;  
Banque Générale du Luxembourg S.A. in Luxembourg.

September 13, 1977

### Jordan may build \$100m. railway

By Rami G. Khourl

AMMAN, Sept. 25

JORDAN is considering building a new 200 kilometre railway line to be used primarily to haul potash for shipment from the southern port of Aqaba.

The chairman and general manager of the Arab Potash Company said that studies are under way for constructing the railway, which would connect the south-eastern Lisan peninsula of the Dead Sea site of the \$425m. potash project to Aqaba, passing through the flat but hot and desolate Wadi Arab region along the border with Israel.

Plans now are to ship potash by truck when production starts at the end of 1981. The railway would probably be a single-track narrow-gauge line, similar to the existing line in Jordan used to carry phosphates to Amman. It would probably cost some \$100m.

The Government has also decided to build a separate berth at Aqaba Port to be used for potash loading, senior Transport Ministry officials have confirmed.

Terms of reference for the potash berth are now being drawn up, and tenders for consultants for the berth project are expected to be issued soon.

The potash berth would come above and beyond the four new general cargo berths that are being built at Aqaba Port.

### GENERATING EQUIPMENT

## India takes on the power industry giants

BY KEVIN RAFFERTY

WITH A Saudi Arabian order for a \$74m. turnkey power station recently that went almost unnoticed outside its own country, an Indian company has chalked up export orders worth \$200m. within a year and gone firmly into the middle league of world makers of power generating equipment.

Mr. V. Krishnamurthy, chairman and managing director, is proud that Government-owned Bharat Heavy Electricals (BHEL) is beating its international competition.

He pointed out that the "thick tank" had recently recommended that there should be mergers between the British power equipment manufacturers to consolidate strength and ability to win exports—BHEL had embarked on just such a scheme several years ago.

The company's progress in the past few years is more remarkable considering that not long ago India's power equipment industry was reckoned to consist of "sick units."

Such a move, Mr. Krishnamurthy pointed out, was a major step in rationalisation of its operations. But he added: "We have gone one step further. More than 50 per cent. of the world's business for power equipment is done on a turnkey basis. Authorities do not want to buy bits and pieces; they want total capability."

This is what we are aiming to supply. We are no longer going to be equipment suppliers, but are going to design whole power stations.

The corporate plan that BHEL embarked on in 1974 involved big changes. Seven points were laid down: to manufacture and supply power equipment of at least 3,000MW a year by 1980; to erect and commission power projects quickly on a turnkey basis; to upgrade after sales service to get the best out of installed power units; to export and "give a respected place among the international manufacturers of power equipment"; to update research and development to reduce dependence on foreign technology; to develop new energy sources such as solar and geothermal; and to develop a new style of personnel management "to bring about an

increased sense of belonging and team spirit among our employees."

Results since the corporate plan was put into effect testify to its success. In the 1975-76 year production rose by 33 per cent. to Rs.2bn. (£260m.). Profits reached more than Rs.50m. Physical production of generating plants in the year reached almost 3,500 MW and exports began to take off. To the year ending in March turnover rose to the equivalent of \$600m., said Mr. Krishnamurthy.

Mr. Krishnamurthy points out the size of the task for a manufacturer in a developing country to try to catch up with competitors from already industrialised countries. All other industrialised countries had more than a head start—Westinghouse had been building power generators for almost 100 years, he said, and even the Japanese had been manufacturing for 50. India was the only country to have built up its power generating manufacturing industry in the last 20 years.

Thanks to the new emphasis on engineering and the setting up of a research and development division, BHEL had begun to turn out products of its own design. Mr. Krishnamurthy mentioned that BHEL designed fused-bed boilers and said the company had set up a small solar power system of its own.

India can do best and develop them—such as the fused-bed boiler, and solar power plant— and to co-operate with foreign companies in areas where the Indian base to-day does not justify indigenous development because it would waste time or money. BHEL has opted for co-operation in the fields of large-scale turbine generators, industrial electronics, combined cycle power systems and transmission systems and products.

All this progress has pushed BHEL into the ranks of companies capable of producing power equipment of the order of 5,000 to 6,000 MW a year, still a long way behind the giants of General Electric (U.S.) and Westinghouse, which have the capacity of 15,000 to 20,000 MW. It is still also some distance from the next group consisting of GECC of the U.K., Alstom, and Hitachi Mitsubishi of Japan.

Moreover, in exporting BHEL may be gaining more than a competitive edge. The company has only started going into exports in the last two years apart from, in Mr. Krishnamurthy's words, "stray exports of boilers to Malaysia." He is anxious to build up exports to 20 to 25 per cent. of production.

But at present rates BHEL's exports may begin to approach 50 rather than 25 per cent. of its production. This year the company won an order worth more than \$100m. from Libya against competition from Japan, Switzerland, the U.K. and Italy. Some of the Middle Eastern countries with big orders have recently expressed a predilection for products from the Third World, not so much because of developing world solidarity but because they believe that the rich industrialised countries are overvaluing them.

Although BHEL is handicapped—again—by having little of its own to offer in the way of original design or technology, it is helped by its lower wage costs, for equivalent skills, and, says Mr. Krishnamurthy, where service costs are involved outside India BHEL is at a decided advantage. It is much cheaper to provide Indian expatriates than those from Western countries, sometimes up to a third as cheap. The successes of BHEL have led some rivals to complain that the company is taking unfair advantage. Some grumble that the Indian company is playing on its Third World connections. Mr. Krishnamurthy just shrugs and smiles at this accusation, as if to suggest that it is only natural. But he emphatically denies that the company is exporting at a loss. The only problem for BHEL may be that Mr. Krishnamurthy has done such a good job that he has been promoted to Secretary (chief civil servant) in the Ministry of Heavy Industry, someone else may have to build on the foundation. This year the conditions be established.



## Today's Chase.

### The relationship bank that leads in foreign exchange dealing.

However large multinational corporations or national companies may be, they are still very vulnerable to foreign exchange risks. The Chase has the experience and the track record to show how these risks can be minimized. Chase foreign exchange experts can advise on how to deal with the latest accounting standards, can make recommendations on hedging strategies and can implement corporate currency trading programmes. Foreign exchange markets are constantly changing and the Chase specialists assess the latest updated information to provide your company with up-to-the-minute advice. Chase has foreign exchange and money operations in all the key markets of the world with European centers in London, Frankfurt, Paris, Geneva, Vienna, Athens, Milan, Luxembourg and Copenhagen, all linked directly with each other and with New York.

Their experience at the trading desk, the focal point of FX dealing. Contact a Chase relationship manager, who will show you what the extent of Chase service is, as well as introduce you to these other ways in which the Chase can help your company.

**Chase Network**  
Chase can provide vast sums of money in local and Eurocurrency and operates essential banking services in over 100 countries.

**Chase Merchant Banking**  
Chase Manhattan Limited, the merchant banking arm of the Chase, is headquartered in London. It participates in private placements, Eurobond issues and the world's major syndicated loans to countries and corporations.

**Chase Trade Financing**  
The in-depth knowledge of the world's big export opportunity markets with all their complexities is at your disposal through Chase's trade finance specialists.

**Chase Information Group**  
You can't make decisions or even know where to look toward expansion without all the facts. Chase World Information Corporation provides just such information for companies around the world. Another company in the Chase Information Group is Chase Economic Associates, today's most respected economic forecasting specialist.

**Chase Energy Group**  
With over forty years experience working closely with the energy industry, Chase is a leader in this field. We are capable of providing assistance on the most complex energy related projects and financing.

# CHASE

Chase Manhattan Bank, N.A., Woolgate House, Coleman Street, London EC2P 2HD, France: 41 rue Cambon, Paris 75001. Germany: Taurusanlage 11, 6 Frankfurt/Main 1. and offices in Amsterdam, Antwerp, Athens, Bari, Belfast, Brussels, Copenhagen, Dublin, Dusseldorf, Geneva, Ghent, Guernsey, Hamburg, Liege, Luxembourg, Lyon, Madrid, Milan, Munich, Piraeus, Rome, Rotterdam, St. Helier, Salonica, Stuttgart, Vienna, Zurich.







We'll take more care of you

23

# British airways ANNOUNCE

Monday, September 26, 1977



## Eleven direct business routes into North America

# GET READY FOR EXPORT BOOM!

BRITISH AIRWAYS has played a major part in Britain's march back towards prosperity and the achievement of a record £316 million surplus in the August trade figures. It has flown out the exporters and flown in buy-to-order tourists. And every day British Airways helicopters are helping to speed up the work in the North Sea oilfields.

The airline is poised to help exporters attack North America where Britain still has a trade deficit in August.

Aspects for trade there are looking brighter and British Airways is ready to make the most of the expected upsurge in demand for flights across the Atlantic this winter. The airline is offering free services to 11 destinations in North America, daily flights to the key cities of New York, Boston, Chicago, Detroit, Philadelphia, Washington, Miami and Angeles, most by wide-body aircraft.

In April, British Airways introduced a daily service to Los Angeles - a new right hand under the recently agreed Bermuda agreement between the government and the USA.

### Hilton has a place for the executive

BRITISH AIRWAYS has joined Hilton Hotels and Inns in the United States to offer a special programme designed specifically for executives from the United Kingdom.

Executives can book rooms at any one of the 170 hotels and inns in the chain at the same time that they reserve their seat on British Airways through a Travel Agent or a British Airways Travel Shop.

The booking is confirmed back to them and the room will not be sold to anyone else, no matter how late the traveller arrives.

On arrival the hotel will have the details of the registration so that it is only necessary to go to the quick check desk, or to the assistant manager's desk to be identified as an Executive Programme guest.

And, providing the assistant manager is informed, guests under this scheme may retain their rooms up to 6pm at no extra charge, an obvious bonus for businessmen waiting to fly back to Britain on an overnight British Airways flight.

Depending on hotel grading, the cost per night is \$25, \$35 or \$42 for a single room, plus tax.



The frontline of the battle for exports... At a New York European Fashion Fair, Raymond Lawson (left), Rally Klad sales director, shows a long cashmere knit to three buyers from Pennsylvania. Rally Klad and 33 other British firms at the fair were backed by the British Overseas Trade Board and sponsored by the British Knitting Export Council.

### Winter flights to Europe

NEW WINTER schedules on British Airways services into Europe from London Heathrow are being introduced from November 1.

Here are some of the high-flights for business travellers: PARIS: There will be six flights a day, four of which will be by the wide-bodied TriStar. First-class accommodation is available on all flights.

AMSTERDAM: There are seven flights a day from Monday to Thursday and six on Friday. There are frequent weekend flights. Some services are operated by TriStar.

BRUSSELS: There are four flights every weekday, and frequent flights on Saturday and Sunday, with TriStar operating some of the early evening return services.

FRANKFURT: There are now three flights on Sunday and every weekday, with two on Saturday. A Super 1-11 flies there each weekday from Manchester.

MUNICH: Two flights on Sunday, Monday, Wednesday, Thursday and Friday, and one on Tuesday and Saturday.

BERLIN: Frequent flights every day.

BREMEN, STUTTGART and HANNOVER: Each has a daily non-stop service.

DUSSELDORF: Three flights a day, Birmingham, Glasgow and Manchester also have flights to Düsseldorf.

HAMBURG: Two flights a day, except Sunday, when there is one.

MILAN and ROME: Two flights a day to each city from Monday to Saturday, and one on Sunday. First-class accommodation is available on all these flights.

TURIN: Four flights a week - on Monday, Wednesday, Friday and Sunday.

STOCKHOLM: The schedule will, for the first time, in winter be a twice daily service.

COPENHAGEN: There are two flights every day, and six of these every week are operated by wide-bodied TriStar.

ZURICH and GENEVA: Three flights to each city every day, except Friday when Geneva has only two.

### Make your sales team high-fliers

TRAVEL awards are a great incentive and an excellent way of increasing company productivity, sales, and profits.

Now BRITISH AIRWAYS, already a leader in this field, has produced an Incentive Travel Planner to back up its excellent Skyhigh Awards Itinerary Brochure.

It gives an eight-step guide to operating an incentive programme.

The Incentive Travel Planner is available from Incentive Travel Department, West London Terminal, Cromwell Road, London SW7 4ED.



## Fly to the East on the fast Orient 'express'

THE fastest flights between London and Singapore on five days each week are operated by British Airways, which has a daily service between the two cities.

Its wide-bodied Boeing 747 jumbos leave Heathrow in the late afternoon or evening each day of the week, and on three days make only one stop on the route. On the remaining days they stop only twice.

Fastest flight time is 14 hours and 40 minutes.

British Airways also has a daily 747 service between London and Hong Kong - another important business route.

The airline flies to the Crown Colony ten times each week.

#### Announce Reporter

their 747 services being augmented on one day of the week with the always popular VC10.

There are five one-stop flights a week to Tokyo from Heathrow.

#### Cartoon by Ross



### Fares are down to New York

FARES have been reduced by British Airways on the London-New York route, and there is a choice to please one.

Two new fares are: **DBY FARE:** This costs the way to New York. Seats are sold on a one-way basis, only when seats are available - and it's first come, served.

These tickets can be issued at the Standby Desk in a Airways Victoria Terminal on the day of departure. Passengers should be there at least two hours before the flight.

The terminal is open 24 hours.

British Airways in-flight service is provided.

On return flights, passengers should go to the Information Desk at the British Airways Terminal at Kennedy

#### Announce Reporter

Airport not less than three hours before departure.

The one-way fare from New York will be \$146 (£85).

**BUDGET FARE:** This will cost \$69 from London to New York and \$160 (£92) from New York to London. Full payment must be made and open tickets issued at least 21 days before the first day of the week in which the passenger wishes to travel.

The passenger will then be given a confirmed flight at least seven days before departure.

If a passenger cancels there will be a non-refundable charge of £30 a ticket.

These tickets can be bought from Travel Agents or British Airways Travel Shops.

Advance booking charter

(ABC) and advance purchase excursion (APEX) fares still offer excellent value.

**ABC FARES:** The advanced booking charter is, in fact, still the cheapest London-New York fare - from £120 to £142 (at Christmas) return.

There is a 46-day advance booking period, and the flights are for various fixed lengths of stay.

**APEX FARES:** The fare from London to New York is £155 return.

Passengers have to reserve APEX seats a minimum of 30 days before departure and stay at their destination between 14 and 45 days.

APEX fares have this important advantage for people with time to book ahead - they are available, not only to New York but to all other cities in the United States and Canada, served by British Airways.

### Your chance for a New Zealand club

BRITISH AIRWAYS is considering forming a New Zealand Reunion Club.

Following the success of the American, Canadian and Australian Reunion Clubs, people have asked if one could be started for those who have friends and relatives in New Zealand.

Members of the other clubs are given the latest information on the cheapest approved fares, help in obtaining visas and expert advice on travel.

There is an attractive finance scheme for buying tickets and a comprehensive travel insurance plan. Preferential car hire rates and bargain rates at hotels are also included.

Group flights for members are also arranged - all for a membership fee of £2 a year.

If you are interested in a New Zealand Reunion Club, please send your name and address on the coupon below.

The club can only be organised if sufficient interest is shown by members of the public - so send the coupon off today.

Post coupon today to: 'New Zealand', 156 Cromwell Road, London SW7 4ED. I have relatives/friends in New Zealand and would like to receive details of the formation of the New Zealand Reunion Club.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

### The world is waiting for you at your Travel Agent

When you want to Fly the Flag contact your Travel Agent for passenger information and reservations, or, if you need to call direct, use these telephone numbers:

London 101 370 5411\*  
Reading 0734 586683\*  
Horsman 04031 61744\*  
Fareham 032921 82721\*

Guernsey 0481 34433 6  
Jersey 0534 22021

Bristol 0272 28181\*  
Cardiff 0222 397071\*

Loughborough 0509 68641\*  
Birmingham 021 236 7000\*

Manchester 061 228 5311  
Liverpool 051 709 0123  
Douglas 0646 241552  
Newcastle 0632 611552

Brigg 0652 54791  
Leeds 0532 446131  
Middlesbrough 0642 241545  
Newcastle 0632 611552

Glasgow 0411 332 8666  
Edinburgh 031 225 2525  
Aberdeen 0224 574281  
Inverness 0463 38871

Belfast 0232 40522

WHY NOT CUT THIS OUT AND KEEP IT?

## British Airways

Fly the flag, feel at home.





# Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

## PROCESSES

### Removing grime from problem surfaces

ENORMOUS and gratifying interest from abroad is being shown in a development for the cleaning of industrial plastics and a variety of metals from problem staining such as caused by milk products, egg, meat and in general, those residues encountered in the food, drink and bakery industries that have proved extremely difficult to remove by previous methods.

Originator is a small company in the Thermoplastic Compounding Group - Ultrasonic Cleaning - which is only 25 years old. It has so far accumulated hundreds of enquiries from overseas at the Interplas Exhibition including one from Canada worth of business in all cases well.

The main advance scored by the company is that it has succeeded in turning ultrasonic cleaning into a flow-line process in contrast with the dip-tank process generally employed hitherto. This means that it can be incorporated into a production system without creating bottlenecks.

## ELECTRONICS

### New chip contenders

MAKING a renewed effort in the U.K. is Solid State Scientific Inc. which, via an augmented sales force in its distributor Ritzy Electronics, will be consolidating its position as a second source for RCA and Motorola semiconductor products.

Via a franchise with RCA, SSS will be offering through Ritzy the 1802 central processing unit in sample quantities from November, with production amounts to be offered by February of next year. Towards the end of next year it will also be supplying other 1800 series devices including read-only and random access memory and universal asynchronous receiver-transmitter chips.

## COMPUTERS

### Printers for smaller systems

TO BE launched by Dataproducts Corporation in October is the New Era range of printers aimed at low and medium speed applications in small business systems, remote intelligent terminals and distributed processing systems.

These of the machines will be shown at the Systems 77 Munich exhibition. The B-300 based printer works at 300 lines/min; it uses the company's five hammer system and a steel band font carrier. Applications will be in mini and microcomputer systems where usage is heavy but capital available may be limited.

## Redifon in Russia

FIRST orders from Russia have been received by Redifon, which is already established as a major supplier/educator in computer data capture and processing equipment in Eastern Europe.

The USSR taker of Redifon equipment is the major supplier of meat products throughout the Moscow area, Mosmyasrom.

## SERVICES

### Information bases merge

U.K. PIONEER in the field of product data dissemination on microfilm, Technical Indexes of Bradford, has joined forces with the Information Handling Services of Denver, Colorado, thereby greatly extending the data base available to the 1,000 customers of the former company in the U.K.

Technical Indexes of Bradford offers its customers about 1m pages of data, including full catalogues from over 16,000 U.K. suppliers, and all the engineering-oriented British Standards. The merger makes available a further 6m pages, presenting the catalogues of more than 30,000 U.S. Canadian and Japanese companies as well as the output of most North American governmental and industrial standards authorities.

Customers of the U.K. company are provided with a cassette book form, the cassettes relating to the section of data they have purchased, and a microfilm reader-printer. Access consists of



## MATERIALS

### Spray for hot fluids

A GUN jet for spraying liquids at pressures up to 2,000 psi has been developed by Spraying Systems Co. of Chicago. The maker says the gun is particularly suitable for hot liquids (up to 84 deg. C), as it does not require interruptions in spraying for cooling periods.

Maximum flow rate is 12.5 gpm. The steel-bodied gun has an epoxy coated aluminium handle which is insulated from the body by a phenolic material. The handle incorporates a trigger gun and a lock to prevent accidental firing.

The forward hand-grip is vinyl, and can be adjusted to suit the operator. First section of the feed hose is heavily insulated.

Marketing in the U.K. is by C.T. (London), 3 Hobart Place, London SW1W 0HW (01-235 1304).

## Speaks many languages

MODULAR simultaneous interpretation equipment from Philips provides the organisers of multi-lingual conferences, seminars and other meetings in provision of permanent or temporary installations for large or small gatherings.

Styled to match the recently introduced Philips CCS 300/310 Conference System and the new Philips Volvox System GVS 100, the interpretation equipment is electrically compatible with the CCS 300/310. Both facilities may be combined in a single system with delegates' microphone units providing both functions. For example, simultaneous interpretation equipment can easily be incorporated into an existing conference system. Or conference facilities can be included when a new interpretation system is installed. Up to eight different languages, including the meeting's own

Speeds of up to 18,000 lines or 210 pages a minute can be attained with this printing unit now released by Hmweywell for sale in Britain. However, it is much more than just a super-printer since its microcomputer controller allows it to be programmed to lay out forms, cut in specified lengths, punch holes for ring binders and produce multiple copies at one pass. Printed output is stacked and collated. The method used is non-impact one in which the company's approach has taken a different path from that followed by other suppliers of such systems. The secret is in the dielectric paper used and the printer forms images on its surface electrically. The activated areas attracting an ink which is then fused by heat. More on 01-568 9191.

## SAFETY

### Hears across loud noise

CHUBB PANORAMA has recognised a major problem confronting personnel wearing ear defenders whilst working for long unintermittent periods in noisy surroundings—boredom and isolation.

The company can provide ear defenders with built-in earphones and microphones for radio reception or intercommunication. The defenders also allow for direct communication to or between staff, irrespective of local noise levels.

Connections can be made to personal transistor radios, tape recorders, vehicle radios or speaker address systems. It is also possible, over fairly short distances, for two people to communicate directly over their ear defenders via a built-in amplifier. For communication over longer distances, they can be used with walkie-talkie sets.

Typical areas of application include airfields and airports, factories, heavy transport, the driver's cabin of tractor or crane drivers, mining and work training on noisy sites.

Chubb Fire Security, Pyrene House, Sunbury on Thames, Middlesex, Sunbury SK868S.

## METALWORKING

### Wires chopped to length

TAKING WIRE up to 30mm diameter and producing short to medium length parts up to 34mm diameter, the prototype of a 5-1/2 high-speed cold-chamber die incorporating a shear, can produce 150 parts a minute, according to the makers.

Developed by Hutech Metalforming Equipment, it is claimed that the shear does not deform the cut blanks, so that the die-polishing does not have to be used for reshaping.

Production speed is increased by arranging for the transfer gripper to travel between dies

### A friendly reliable service with GKN Bars and Sections

GKN (South Wales) Ltd. Tel: 0222-33033

### PACKAGING

#### Knife to cut cartons

IF TINS are scored when a carton is being opened the scum can penetrate and contaminate the contents.

Stanley Tools has developed knife specifically for opening cardboard cartons containing tinned foodstuffs. The head is shaped so that the blade protrudes sufficiently to cut open the carton, but cannot reach or damage the enclosed tins.

More from the maker on 01-78678.

### INSTRUMENTS

#### Counts and times

AVAILABLE from Systonics is a universal counter timer which consists of two independent instruments, two separate eight digit displays housed in one unit.

Model 5881A's two channels each can be set to 1000 Hz or 100 ns/second time interval resolution and offer switchable ac/dc coupling. This simultaneous dual measurement facility allows any combination of frequency, period, ratio, time interval measurements to be made and displayed.

From Systonics, Merz Road, Hemel Hempstead, Herts. SG9 6LN (0428 2541)

### METALWORKING

#### Wires chopped to length

only when setting by returning to the pick-up post by swinging up and over punches—cibs and slides have been eliminated, as the parts move around pivots.

Both grippers and individual tool links are assembled. The maker says only two screws are removed, change a block so that adjustment is simplified, and change for new jobs reduced to a minimum. There are ejectors on all five dies.

Production speed is increased by arranging for the transfer gripper to travel between dies

### APPOINTMENTS

#### Marketing Executive

A leading U.K. Construction Company requires a top Marketing Executive. The successful applicant must have the personality and experience necessary for identifying and discussing proposals and then converting them into Management Fee Contracts. The Company carries out a large range of high quality commercial and industrial building contracts throughout the United Kingdom, with an annual turnover in excess of £25 million. Candidates should have a proven record with clients at the highest level and an extensive knowledge of working with industrial and commercial undertakings.

A very attractive salary package will be negotiated consistent with the importance which the Company places on the appointment. All applications will be dealt with in confidence by the Chief Executive of the Company and should be addressed to Beckwell Recruitment Advertising Executive, Confidential. All applications must be accompanied by a CV.

Beckwell Recruitment Advertising

### COMPANY NOTICES

#### ALEXANDER FUND S.A.

Societe Anonyme  
Luxembourg, P. rue Notre-Dame  
R.C. Luxembourg n° 87615

Messrs. S.B. Helder are hereby convened to attend the Statutory General Meeting which is to be held on October 4th, 1977 at 11.00 a.m. at the local office with the following agenda:

Agenda:

1. Submission of the reports of the Board of Directors and of the Statutory Auditor.
2. Approval of the balance sheet and the profit and loss account and allocation of results as of June 30, 1977.
3. Discharge of the Directors and of the Statutory Auditor.
4. Re-election of the members of the Board of Directors and of the Statutory Auditor.

There is no quorum requirement for the Annual General Meeting and the resolutions will be passed at a simple majority of the shares present or represented.

The Board of Directors

### WANTED

MODERN USED ROLLING MILLS, wire rod and tube drawing plant—roll forming machines—slitting—flattening and cut-to-length lines—cold saws—presses—guillotines, etc.

0902 42541/2/3  
Telex 8951524

## Alloy for furnaces

PIPEWORK AND fittings in petrochemical cracking and reforming furnaces are subjected to high stress to high temperature, corrosive conditions, and special alloys have been developed for these applications.

One of these is Thermax 532, a cast austenitic steel (32 Ni, 20 Cr, 4% Nb) produced by Sheepbridge Alloy Castings. An improved version has been developed which is stated to have improved stress-rupture properties, tensile ductility and scaling resistance—the company is unwilling to be specific about the alloying additions.

Tests at the Sheepbridge Engineering Group's laboratories are reported to show that the rate of scaling is about half that of the original alloy. The alloy is said to be readily weldable

## PERSTORP

### —AND ITS SUBSIDIARY

# WHICH IS ALWAYS LOOKING FOR THINGS TO DO.

Remove from this advertisement Perstorp AB, a public limited company, with head office at Box 100, S-221 00 Malmö, Sweden, and important sectors are the production of automotive and industrial goods, paper, pulp, and other products, and also the production of

Perstorp

### PLANT & MACHINERY SALES

Description	Price	Telephone
8 BLOCK (400 mm) IN LINE, NONSLIP WIRE DRAWING MACHINE in excellent condition 0-2000 ft/min variable speed 10 hp motor (A68).	P.O.A.	0902 42541/2/3 Telex 336414
24" DIAMETER HORIZONTAL V.A. BLOCK by Farmer Norton (1972).	P.O.A.	0902 42541/2/3 Telex 336414
ROTARY SWAGING MACHINE by Farmer Norton (1972).	P.O.A.	0902 42541/2/3 Telex 336414
SLITTING LINE 500 mm x 3 mm 1 ton capacity.	P.O.A.	0902 42541/2/3 Telex 336414
TWO VARIABLE SPEED FOUR HIGH ROLLING MILLS EX 650" wide razor blade strip production.	P.O.A.	0902 42541/2/3 Telex 336414
MODERN USED ROLLING MILLS, wire rod and tube drawing plant—roll forming machines—slitting—flattening and cut-to-length lines—cold saws—presses—guillotines, etc.	P.O.A.	0902 42541/2/3 Telex 336414
1974 FULLY AUTOMATED COLD SAW by Noble & Lund with batch control.	P.O.A.	0902 42541/2/3 Telex 336414
1970 CUT-TO-LENGTH LINE max capacity 1000 mm x 2 mm x 7 tonne coil fully overhauled and in excellent condition.	P.O.A.	0902 42541/2/3 Telex 336414
1965 TRIPLE DRAFT GRAVITY WIRE DRAWING machine by Farmer Norton 27"-29" diameter drawboxes.	P.O.A.	0902 42541/2/3 Telex 336414
STRIP FLATTEN AND CUT-TO-LENGTH LINE by A.R.M. Max. capacity 750 mm x 3 mm.	P.O.A.	0902 42541/2/3 Telex 336414
1970 TWO STAND WIRE FLATTENING AND STRIP ROLLING LINE variable speed 60 hp motor.	P.O.A.	0902 42541/2/3 Telex 336414
2 15 DIE M4 WIRE DRAWING MACHINES 5000 ft/min with spoolers by Marshall Richards.	P.O.A.	0902 42541/2/3 Telex 336414
50 HP VERTICAL WIREDRAWING BLOCK x 450 mm dia.	P.O.A.	0902 42541/2/3 Telex 336414
9 ROLL FLATTENING MACHINE 1750 mm wide.	P.O.A.	0902 42541/2/3 Telex 336414
7 ROLL FLATTENING MACHINE 945 mm wide.	P.O.A.	0902 42541/2/3 Telex 336414
COLES MOBILE YARD CRANE 6-ton capacity lattice job.	P.O.A.	0902 42541/2/3 Telex 336414
2 OFF STANKOMATIC STA12 Swiss type Automatic—unused.	P.O.A.	Mansfield 53922/57485 (06231) Telex 377726 CEDS G
1 OFF STANKOMATIC STA16 Swiss type Automatic—unused.	P.O.A.	Mansfield 53922/57485 (06231) Telex 377726 CEDS G
1 OFF 1973 STANKOMATIC 45 mm Turner Automatic. (Used on Aluminium only).	P.O.A.	Mansfield 53922/57485 (06231) Telex 377726 CEDS G

Perstorp AB, Box 100, S-221 00 Malmö, Sweden. Tel: 0402 22222. Telex: 336414. Fax: 0402 22222.







HOME NEWS

Brewers reply this week to price commission

BY KENNETH GOODING, INDUSTRIAL CORRESPONDENT

BREWERS fear there might be a six-month beer price freeze with the Commission report published in July, which contained allegations of inefficiency in the industry. The brewers were told unofficially that it could lead to trouble for companies seeking a beer price rise.

Tobacco substitute health studies in jeopardy

BY STUART ALEXANDER

LUNG-TERM health studies on tobacco substitutes are being put in jeopardy by the low level of sales so far achieved. When the tobacco manufacturers were given the go-ahead by the Health Committee to use the substitute earlier this year, one of the conditions was that they should carry out a long-term monitoring programme on users.

Sharp rise in spending on food

BY RICHARD MOONER

HOUSEHOLD FOOD expenditure rose almost twice as fast as prices between the first and second quarters of this year. Figures published by the Ministry of Agriculture today show that the average person consumed £5.15 worth of food a week in the April-June quarter, 5.1 per cent more than in the first quarter.

Consumers 'should unite to influence Europe'

By Elinor Goodman

THE BRITISH consumer movement should unite to influence the policymakers in Europe, Mr. Michael Shanks, the new chairman of the Government-financed National Consumer Council said at the end of the Council's third annual congress at the weekend.

Retailers cut instant coffee profit margins

RETAILERS will cut their profit on three instant coffee lines from today to cushion the latest round of manufacturers' price increases. Profit margins in most shops will be cut to 5 per cent, or 7 per cent in the case of smaller stores.

SURVEY OF CONSUMER CONFIDENCE

Optimism at a seven-year high

BY OUR CONSUMER AFFAIRS CORRESPONDENT

PEOPLE ARE feeling more confident about their financial prospects than at any time since the beginning of 1970. This was revealed in the latest survey of consumer confidence carried out for the Financial Times by the British Market Research Bureau.

FT GROCERY PRICES INDEX

Year on year rise cut to 11 1/2%

BY OUR CONSUMER AFFAIRS CORRESPONDENT

THE COST of the Financial Times grocery basket edged up again this month after falling for two successive months. The index rose by 0.35 points to 255.81, just above the August level.

Table with 2 columns: September and August. Rows include Dairy produce, Sugar, tea, coffee, soft drinks, Bread, flour, cereals, Preserves and dry groceries, Sauces and pickles, Canned goods, Frozen foods, Meat, bacon, etc. (fresh), Fruit and vegetables, Non-foods, and Total.

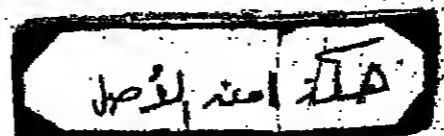
With 47 per cent saying were worse off than a year ago, this left a balance of 26 per cent who felt their incomes had kept up with inflation. This much lower figure than in 24 months of the year.

ENTERTAINMENT GUIDE

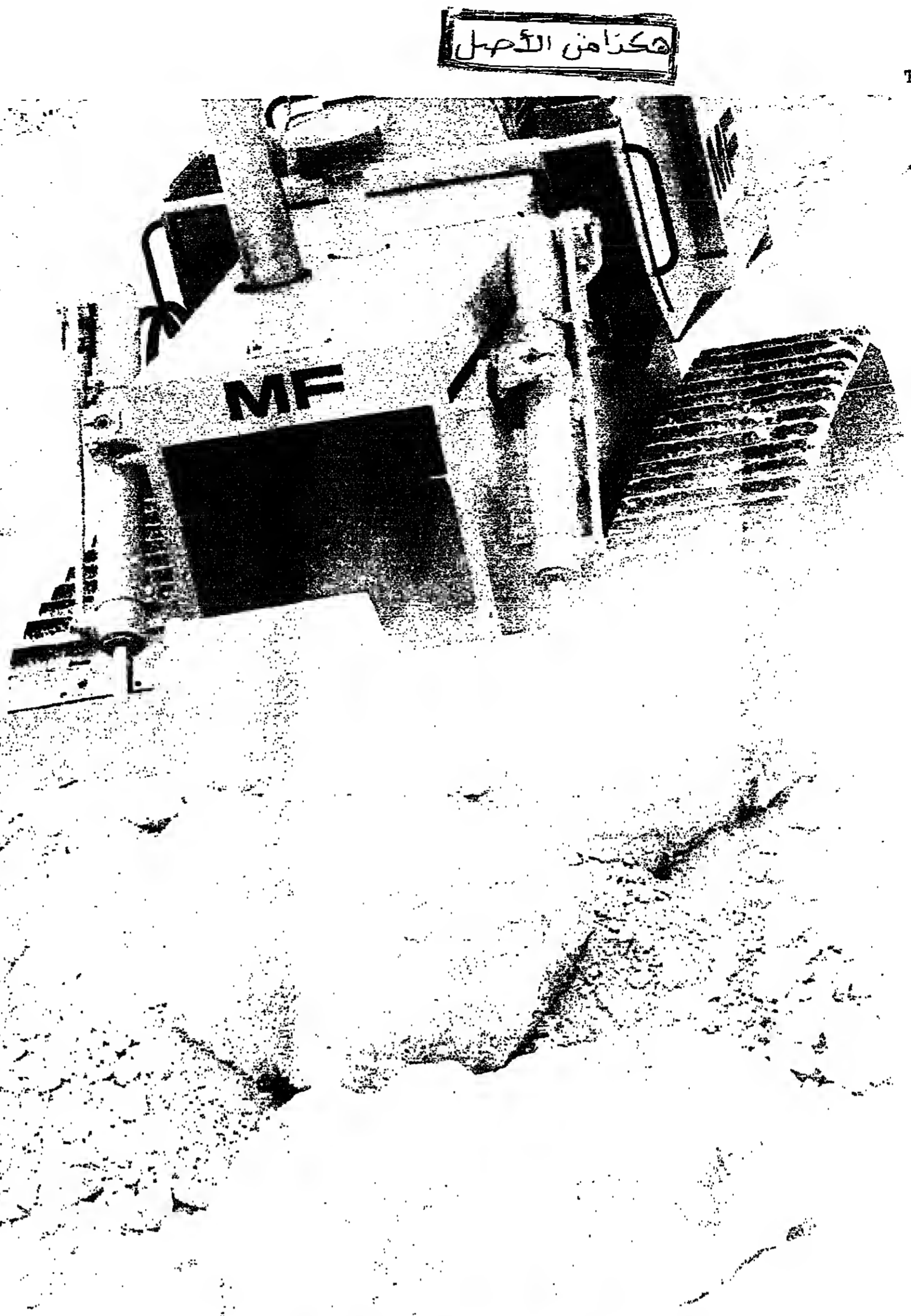
Entertainment guide listing various theatres and cinemas. Includes sections for Opera & Ballet, Theatres, and Cinemas. Lists names of plays, movies, and venues.

Quarterly analysis of bank advances

Quarterly analysis of bank advances. Includes tables for Advances to U.K. residents, Manufacturing, and Other production. Tables show data for London clearing banks, Scottish clearing banks, Northern Ireland banks, and All banks.







# Meet the Irresistible Force.

Massey-Ferguson come up against some tough jobs around the world. But with dozers like the MF D400C, we can take them all in our stride.

Our engineering expertise makes productivity, reliability, fuel efficiency and low noise level all part of our MF D400C.

They're also qualities we are building into our range of more than 40 different industrial and construction machines. Qualities that have made us a world leader in this highly competitive market.

With such technically advanced products, backed by long-established servicing and distribution in 190 countries, it's small wonder our ICM business has grown 60 per cent in the last two years.

It all adds up to an irresistible argument. When you have a tough job that needs to be tackled efficiently, you must consider Massey-Ferguson.

**MF**  
Massey Ferguson







# Insurance against the death of a salesman

BY ERIC SHORT

INSURABLE companies realise that there would be a financial loss if a certain employee died, but they do not know how much. Insurance companies underwriting such a risk say that they do appreciate the problem and maintain that it is being made and they will usually agree to a return to normal figure that is considered reasonable also ensure dependants of em- Since this type of insurance is e adequately pro- still the exception rather than ncially should they the rule companies contempl- fortune to die or ing it would probably be best ally disabled. But advised to seek a professional companies ever stop view. Some insurance broking the financial conse- firms have made key-man insur- the company should ance a speciality and are thus oye be unfortunate able to offer advice on which lie or become totally employees are in key positions Or if they do get and what level of cover is hey do nothing to required.

The type of cover provided is quite straightforward. The Phoenix Assurance, a company that has gone for this market in a big way, offers a convertible temporary assurance to cover the death risk and a separate permanent health contract to meet the disability risk. The mix depends on the client's requirements. Medical evidence replacement has re- would be required.

The period of life cover can be taken up to normal retirement age, but cover for such long periods is not usually necessary. Where the employee is under a service contract, the usual procedure is to take out a contract to the renewal date of that contract. Then if the contract is renewed a fresh policy is taken out. The Phoenix's temporary assurance is of the convertible type, so that it can be renewed with a fresh medical examination.

Under normal circumstances, the premiums would be treated as a normal business expense and would be allowable against corporation tax liability. In this case, the money resultant from the claim would be treated as trading profits and taxed accordingly. Therefore, it can be arranged to have the sum insured paid over a certain period, in effect replacing the types of profits that would have been whose lives such earned.

There are tax problems to be decided on where the key employee concerned is a controlling director. In such cases it is advisable to seek a ruling from the local inspector of taxes.

man whose personal re- business in a cer- the technical man whose personal re- business in a cer- the technical

## Business courses

ments of Staff Ap- International, 6-10, Frederick ve Hotel, London. Close, Stanhope Place, London, W.2. Fee: £195.55.

Flinding Tomorrow's Men and Women—The Identification of Management Potential, The London Hilton Hotel, October 3-4. Fee: £120. Details from The In- hcon Management Develop- ment Service, Knightsbridge on, September 26-28. House, 197, Knightsbridge, Lon- Details from AMR don, S.W.7.

## Would you like us to be your memorial?

Most of us reasonably want to leave a tangible evidence of our life's events and concern for others. The Aged welcomes an enduring citation between donors and the work have helped. So if you are con- ring your will, and would like your for others to continue in your name, will be glad to send you, or your pro- nalisers, details of the several s in which this is possible.

The number of old people is growing re their problems of loneliness, lack armth and suitable medical facilities. ou can help a Day Centre and retain ontinuing association with it on its itation Plaque with a gift of £150; or ate a house while remaining in it for r lifetime.

ott can name a whole scheme for 000 upwards. Gifts or bequests to ity are now free of tax up to £100,000. it is possible for some estates to ce the impact of Capital Transfer with a bequest. We shall be glad to details without obligation.

you are considering a legacy, write hone for the interesting and helpful klets on the making of wills and eing the impact of Capital Transfer . Free on request, together with the ual Report and Accounts from The . Treasurer, The Rt. Hon. Lord hray-King, Help the Aged, Room L, 32 Dover Street, London W1A 2AP. phone: (01) 499 0972.

## EXECUTIVE HEALTH

# Please cure me by return of post . . .

BY DR. DAVID CARRICK

THERE is a strange tradition about the multiples of twenty-five which excites the desire for wild celebration at the most, and mild comment at the least. Royal jubilees are splendid affairs; and even the achievement of half and full centuries by cricketers cause limited jubilation—so long, that is, as they are scored by members of the home team.

This all leads up to the world-shattering information that this article is the 100th in a series that started in August 1973 and, excepting for a slight hiccup when we were in the big nineties, one that has plodded on at the glacier-like rate of one per fortnight.

There were several reasons for writing these essays, the most important of which was to fulfil a quaint ambition of mine (and thoroughly shared by the invaluable IONICUS) to produce understandable and reasonably accurate medical information in a light vein. Believing that medicine does not belong in the funeral parlour, and that too many medical articles tend to be morbid and even frightening because that is the stuff news is made of and is not calculated to amuse, we have attempted to sweeten the pill and make it more palatable.

That this approach is not always understood was illustrated by a curious adventure that befell me at a party a couple of years ago. A solemn, sepulchral stranger who, by his dress and physiognomy, looked as though he might be a successful undertaker, introduced himself and announced that he read my



... I'm not supposed to laugh at something medical!

articles. I replied that I was pleased to hear that somebody had read it, and the man said that he supposed so. Then, after a long pause, he added: "But, unfortunately, they have given me a bad cold, and I have had to take a course of antibiotics. I'm not supposed to laugh at something medical!"

weeping, which greatly marred her enjoyment of her wedding anniversary. The cause was discovered: she was allergic to the pollen of lilies which had been included in her wedding bouquet and subsequently in our anniversary posy given by my loving husband. When roses were substituted, she never more sneezed at her anniversaries and all was peace and joy.

Not unnaturally, some letters have expressed criticism—usually on unexpected themes. One good lady accused me of being "anti-female," and some- times I wish that were even more true. Several times I have been suggested that I have named on very rare occasions: follows:

Mention of ventilation brings me to one of the most remarkable letters I have ever received. It came from a very far part of the world, many miles away. It ran as follows: "Respectable Sir, Sometimes I read your pieces and find some of them alright. Now you must help me with a problem. You see, I have disgraced my neighbours who have always enjoyed much annoying me. Now the last straw has fallen in the form of a large air-conditioning machine they have installed in my bedroom. It is very loud and as these wicked people have knowledge that always in the afternoon I sleep, they switch it on and murder my sleep. So, out of revenge, I do not have installed a much higher air-conditioning machine which I run all night long.

Unfortunately, now I cannot sleep at all. Kindly solve my problem by return.

Yours respectfully, This was a puzzle but, as I had been



Dr. David Carrick, medical officer of the Financial Times

much pestered of late by certain purveyors of sound-proofing materials. Thus I turned them on to him and vice versa . . . and heard no more from either party.

Anyway, letters from readers are of value in several ways, and I trust that, during the second century, executives, their families and staff will continue to put one right; when I err; put when they approve; but, above all, put forward suggestions for topics of interest—so long as they are not too abstruse.

# The question of self-advertisement

BY H.A.N. BROCKMAN, ARCHITECTURE CORRESPONDENT

AT ITS July meeting the Council of the Royal Institute of Architects voted to amend the clause in the Code of Professional Conduct which, in common with other major professions, forbids its members from individual advertisement. The Architects' Registration Council of the U.K., as the controlling body for all architects, was consequently asked by the RIBA to make a parallel amendment to its own code.

The figures for the crucial vote in the RIBA Council were highly unsatisfactory; there are 60 Council members, 20 of whom voted in favour, with 17 against and five abstentions. Such a fundamental relaxation of the Code should have merited a far greater turnout especially as the majority of regions and branches of the Institute had rejected the proposal.

The ARCUK, by law, controls activities of a number of architectural bodies of whom the RIBA is numerically the principal, and it is the ARCUK which will consider the matter at its meeting on October 12.

In the meantime objections have arisen from all over the country and a ballot organised by the newspaper Building Design has resulted in an 80 per cent. "no" from over 3,000 ballot papers received.

The Architects' Journal has also polled its readers—the result is not yet available—but it would be surprising if it differed much from that of Building Design's readers.

As the result of angry correspondence, which included a few resignations, the RIBA Council, when it meets again on October 4, will be asked by the Policy Committee whether it wishes to reconsider the question. It is unlikely to vote to reverse the decision as such an action demands a two-thirds majority, but it is possible that it will request ARCUK to take no action for the time being.

### Benefit

It would seem that only the smaller practices could in any way benefit from self-advertising; the larger firms with sound connections are most unlikely to make any move in this direction. Certainly in London the only advertising which could be of any use would have to be in one or other of the national papers and would be very expensive and out of the reach of small firms. Provincial papers could prove more useful as practices out of London are mostly in more thinly populated areas. It would moreover help counter unfettered competition from "architectural consultants" who, while being prohibited from calling themselves architects, can nevertheless use the word "architectural."

But is it really desirable that such a move should be made at all? Those in favour feel it is more ethical to get work by knocking on a prospective client's door and explaining the services and skills an architect can offer, than by getting to know him by joining the golf club. Moreover, the architectural profession is closely bound up with the building industry

and it is the only part of that industry which does not advertise, with the exception of other established professions such as consulting engineers.

One distinguished and influential member of the RIBA Council, Andrew Derbysire, recently wrote in the Architects' Journal supporting the proposal. He argued that architects should change their concept of professionalism. If architects were to help meet the challenge of the future they had to accept new tasks, new ways of working, new responsibilities and new forms of accountability. If they did not, others less well qualified in skill, and less committed

to a moral code, would have to take over, simply in order to deal with the staggering need. He added: "The self-protective rules forbidding advertising . . . should now be relaxed in the interests of the consumer. We must make competition by performance more effective by giving architects freedom to communicate facts about their performance to potential clients."

In the same number of the Institute on this issue, A.J. Mr. Raymond Cecil, who is one of those who have resigned from the Institute on this issue, wrote that in his view the proposed revision of the code was nothing in the first Royal Charter of the RIBA which im-

posed that architects should not advertise. The question could not have been remotely considered when architects were setting up alongside the lawyers and the doctors as organised professional practitioners. Nevertheless, advertising, as he wisely points out, has nothing to do with reputation; the important thing is the way the profession adjust to change. Remove one brick in the structure of professionalism, he writes, and others start moving; limited liability the fixed fee scale.

The Monopolies Commission which had disapproved the RIBA the matter of scale fees

# Our business is to help your business grow

## In Wales.

At the Welsh Development Agency, our job is to encourage industry to expand and develop in Wales.

And that includes providing financial help for incoming companies.

We can help finance your expansion programme with equity capital or loans. Or both.

You'll find WDA loans are arranged at highly competitive commercial interest rates over periods adjusted to suit your development.

In recent months, we've provided finance for individual companies from £1,000 to £250,000.

Over the next few years, we'll be spending well over £100 million to

help business in Wales.

But finance isn't the end of the story. We have modern factory units for rent, lease or sale, from 1500sq. ft. upwards, throughout Wales.

And we can give you expert advice about setting up your business in Wales. We'll also advise you on the range of government incentives available (including rent free concessions) and help you take steps to get them.

It doesn't matter what size you are. If you can demonstrate that your business is viable or has potential, call us on the number below, and we'll talk business together.

## Welsh Development Agency

Treforest Industrial Estate, Pontypridd, Mid Glamorgan CF37 5UT. Tel: Treforest (044385) 2666. Telex: 497516.



Japan: the high flyer is stalled

By CHARLES SMITH, Far East Editor in Tokyo

The value of conditions

IT IS as refreshing as it is rare to have an IMF meeting where the U.K.'s economic performance is singled out for commendation.

There has been a certain amount of criticism of the U.K. management of the sterling exchange rate. Fortunately for the Chancellor some of this criticism is self-cancelling.

End of a nuclear chapter

THE WORK of the Nuclear Suppliers Group on the grounds that it limits the spread of nuclear weapons has been one of the most successful exercises in international diplomacy.

Moreover, the exercise has been the more impressive in that it has not been accompanied by any grandiose statements of intent.

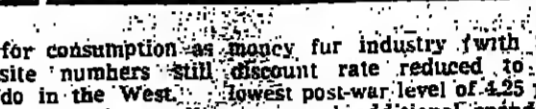
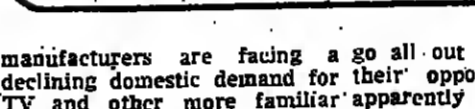
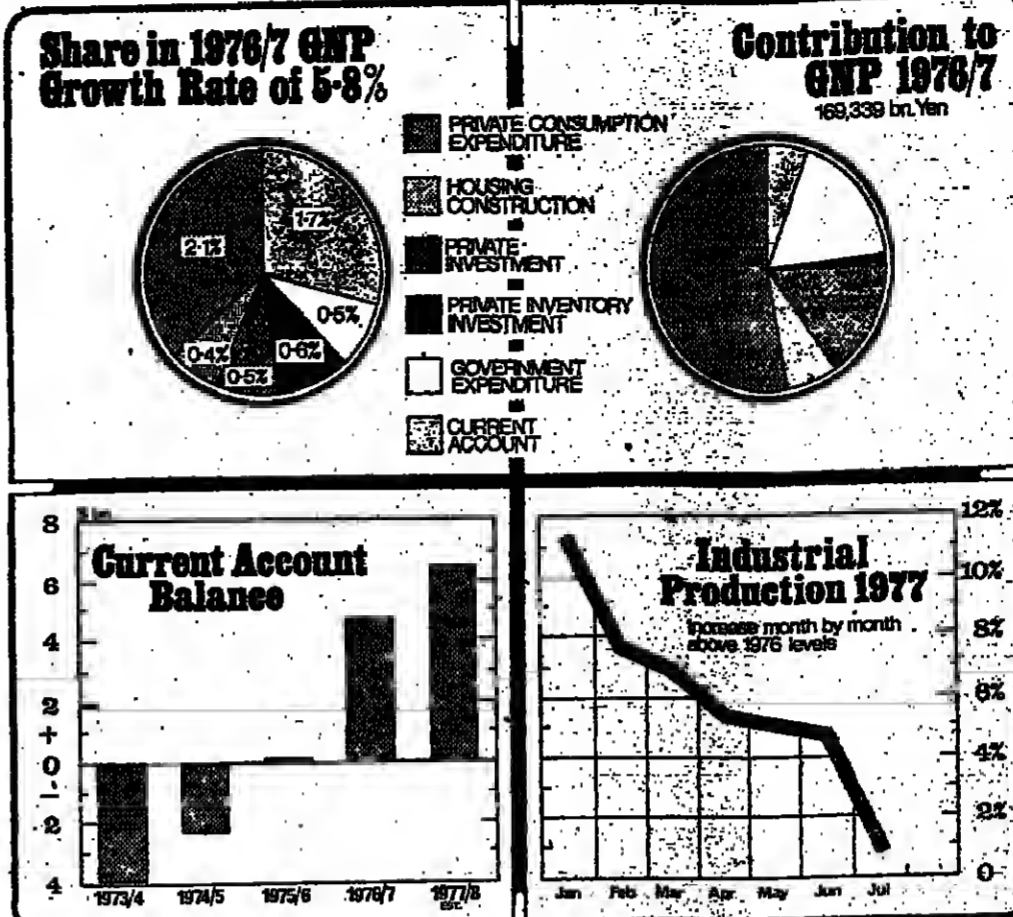
JAPANESE economic aspirations for the fiscal year ending next March 31 and the attempt to soothe foreign critics have focused on two targets, both of which may never be hit.

The target for the real growth rate of Gross National Product, which the Government says will be achieved, but which businessmen and private economists regard with a lot of scepticism, is 6.7 per cent.

No simple cure

The diagnosis is a fairly simple one—though the cure may be anything but simple.

The record is less satisfactory if you look at the details. It then emerges that Japan relied overwhelmingly on exports throughout 1976 and into the spring of 1977 to obtain the growth it could not get from a stagnant domestic economy.



Manufacturers are facing a go all out for consumption as their opposite numbers still apparently do in the West. Japanese consumers naturally do not spend money—they are better equipped with television sets, washing machines, radios, and almost every conceivable electronic consumer durable.

MEN AND MATTERS

I'll resign... if it's true

IN the wake of the death of Steve Biko, one extraordinary journalist in South Africa has taken it upon himself to lead the demands for a full inquiry, and for the resignation of Jimmy Kruger, the Minister of Police.

Oh Denis, you are a card

The Denis Healey walking, jokingly travelling road show, boosted by good reviews at the dress rehearsal in front of the Commonwealth in Barbados, took Washington by storm over the week-end.

Sheffield united

Sheffield, so long synonymous with steel, now rules supreme at British Steel following the top level management re-shuffle this week-end.

Marx on his head

A witicism at the expense of the Kremlin is currently delighting the intelligentsia of Eastern Europe. It highlights the Soviet anxiety about the spread of Eurocommunism.

Sheffield united

Sheffield, so long synonymous with steel, now rules supreme at British Steel following the top level management re-shuffle this week-end.

Marx on his head

A witicism at the expense of the Kremlin is currently delighting the intelligentsia of Eastern Europe.

LIBERAL CONFERENCE

"I don't like LIB-LAB but it sounds a lot better than LIB-CON!"

Oh Denis, you are a card

The Denis Healey walking, jokingly travelling road show, boosted by good reviews at the dress rehearsal in front of the Commonwealth in Barbados, took Washington by storm over the week-end.

Sheffield united

Sheffield, so long synonymous with steel, now rules supreme at British Steel following the top level management re-shuffle this week-end.

Marx on his head

A witicism at the expense of the Kremlin is currently delighting the intelligentsia of Eastern Europe.

Sheffield united

Sheffield, so long synonymous with steel, now rules supreme at British Steel following the top level management re-shuffle this week-end.

Marx on his head

A witicism at the expense of the Kremlin is currently delighting the intelligentsia of Eastern Europe.

year is that the economy just about be able to ad the quarter-to-quarter growth rate of 1.4 per which will be needed to the much publicised 6.7 cent real growth for the as a whole. Optimism is on the fact that, in the quarter of the fiscal year (April to June), the actually achieved a 1.9 per growth rate, over the pre quarter. This, however, largely due to an extra heavy concentration during quarter of starts on public projects (whose full val credited to the GNP when begins). Public works ing, which contributed exceptional 0.9 per cent April-June growth rate, have to stay very high if the remainder of the year indeed a good and steady growth, despite the pre-achieved targets are achieved.

Advertisement for Nautilus Patek Philippe watches, featuring a large image of a watch and text: 'ONE OF THE WORLD'S COSTLIEST WATCHES IS MADE OF STEEL'.

Observer



# FINANCIAL TIMES SURVEY

Monday, September 26 1977

مكثان الأجهل

nity  
the  
y  
thony McDermott

## Arab Cooperation and Development

The Arab world is strained by divisions as it faces the difficult option posed by the U.S. peace initiative. But underlying factors working towards unity are stronger, and being expressed in many forms of cooperation.

RAINING an unity which b countries are now virtually handing over the negotiations for Jordan's West Bank after Israel's withdrawal to the Palestine Liberation Organisation (PLO). In the euphoria the Arab countries gave themselves the impression (and others who wanted to use or abuse the illusion) that something decreed was a triumphal fact.

Since then, both the immediate issues, the political environment, and the negotiating tactics have been turned upside down. Dr. Henry Kissinger, the former U.S. Secretary of State, must be credited with having opened up the process of negotiations. He has shown that Arab-Israeli co-operation in some arm's-length form is possible by negotiating two Israeli withdrawals across Sinai and one on the Golan Heights. This helped to install the U.S. as the paramount superpower in the Middle East, leaving the Soviet Union with firm friends only in Iraq, Libya and South Yemen—and among the "frontline states" a questioning, uncertain ally in Syria.

Moreover, whereas leadership of the Arab world, often a misleading concept, had nearly always been accorded to Cairo, with occasional residency in Syria, it can now be argued strongly that the most influential Arab country today is Saudi Arabia because of its oil wealth, financial muscle and close links with the U.S. The underlying pan-Arab tensions brought about by the second Egyptian-Israeli disengagement agreement in Sinai—with the implied step by Egypt towards acceptance of the Israeli entity in the Middle East—broke, with appallingly its criticism of the second Sinai agreement, while Egypt would

Lebanon and led to 18 months of fighting which somewhat crudely has been portrayed as a conflict between the Christians on the Right and the Moslems on the Left upholding the cause of the Palestinian Resistance.

### Costly

In terms of human life it was one of the costliest civil wars of the century. Syria intervened with skilful cynicism—first making sure that the Left did not triumph, then ensuring the survival of the Right and latterly supporting the Palestinian presence in the south. In the process it at once became a villain in Palestinian historiography, not least by allowing the Right-wing forces to take the camp of Tel el Zaatar after a 50-day siege. The outcome is that the Palestine Liberation Organisation—for so long a sacred cause for all Arabs—is now more weakened than ever.

Peace in Lebanon finally came at the last Arab summit held in Cairo in October, 1976, where a theme vital to the understanding of Arab politics emerged again—the ability of Arabs after abrasively abusing each other to patch up reconciliation and to compromise. It was agreed that Syria would drop its criticism of the second Sinai agreement, while Egypt would

go along with the formation of an Arab League force, almost entirely made up of Syrian troops to patrol the peace in Lebanon.

During this period—in spite of overall differences—two groupings covering the western and eastern flank of Israel have developed. Jordan and Syria formed a Supreme Command Council in August, 1975 thereby helping to formalise steps towards a national "Greater Syria" which would include Lebanon and the West Bank as well. Egypt and Syria formed a united command in December, 1976, which Sudan joined in February. Syria is the vital connecting link, but behind the scenes Saudi Arabia, through its enormous wealth and religious influence, is asserting its weight.

The emergence of the hard-line Likud regime in Israel under Mr. Menahem Begin—in its own way as religiously fundamentalist and intractable as Saudi Arabia—should have closed Arab ranks, but differences are all too apparent. Admittedly, assessment of Arab disunity depends on how seriously one takes the protestations of this family of nations, which is so diverse despite a common language and the pre-dominance of Islam within it, about al-Urouba, or the concept of Arabism. The fact is that there are currently three

fratricidal disputes which could lead to local wars between members.

In the case of Egypt and Libya, it already has in the form of the brief outbreak of fighting and even more bitter recriminations in June. The conflict between Cairo and Tripoli is far from over.

A vital element of al-Urouba is Islam (which inevitably poses problems for the considerable number of non-Islamic communities in the Arab world). An additional important link is language, which despite the dialects and colloquial variations, provides through the classical Arabic of the Koran, and its tarnished versions in newspapers, films, and, above all, broadcasts, the most identifiable lowest common denominator as to who today is an Arab. These influences are in their own way far more constant and pervasive than the chronic and localised symptoms of instability which have been induced not the least during the last three decades by the artificial borders imposed by colonial powers, by the often uncritical adoption of European-type concepts of the nation state and the focus of the world's greater powers on the area and its components because of oil and strategic geography.

One superficial indicator of unity is the greater degree of stability of individual countries. In the past few years there have been fewer military coups. For

example, in Egypt, President Sadat succeeded constitutionally on Nasser's death. In both Syria and Iraq—regarded as chronically unstable—there has been no change in the head of state for some years. To some extent, this reflects the fact that Arab heads of state, as in many other regions, have become professionals in staying in power. The tools are familiar—same news media; limited exercises in party politics; and tough security and armed forces. But Arab oil-wealth has been a useful addition to a government's armoury.

Secondly, there is the tension over the former Spanish colony of Western Sahara. This has been uneasily divided between Morocco and Mauritania, against which the Polisario guerrilla movement, supported by Algeria, is carrying out a persistent campaign. This conflict too, always carries the possibility of direct conflict between Algeria and Morocco. Thirdly, the rival Baathist regimes of Iraq and Syria have for many years been at odds, which have been sharpened by explosions in their main cities, usually attributed by one side to the machinations of agents of the other.

In spite of these divisions, there are fundamental ties which bind the Arab world, often defined only with difficulty but which transcend the obvious ethnic, physical, dialectical, religious and social differences in 20-odd states. The collective feeling which is expressed well by the term al-Urouba, has been heightened by the massive increase in Arab wealth, particularly since 1973, and the resulting increase in influence. The world outside the Middle East has become increasingly aware of this consciousness through the sheer presence of Arabs abroad and investments of Arab governments and individuals.

Below the superstructure of co-operations lurk several potential strains and contradictions. One comes as a result of increased education and greater opportunities for travel. For the less privileged in the oil-rich states of the Arabian peninsula the glimpses of how other countries run their affairs and how ordinary people behave or misbehave, together with higher educational standards, will inevitably lead to a more critical questioning of the way their own governments, dominated either by ruling monarchical families or by "party-backed" leaders, run their affairs.

So far, the reaction has been to reinforce the fundamental values of Islam as a bastion against change. Such has been the financial dependence of the oil-rich states on the oil-rich Arab world elsewhere. One example of this pervasive influence is Egypt, a notably cosmopolitan society with a sizeable Coptic community but deeply dependent on Saudi aid towards paying off its debts. Last year a law prohibiting the sale and consumption of alcohol in non-tourist areas was adopted (but not widely enforced).

This year a law of Islamic punishments was drafted by a committee of Moslem religious leaders and legal scholars at the request of the more conservative members of the People's Assembly. After those proposals (legal at least in theory in Libya and the United Arab Emirates) were shelved but they included the cutting off of the right hands of thieves, the stoning to death of adulterers and sodomites, the banning of apostates, and the flogging of those producing, selling or drinking alcohol.

### Investments

Thus, massive investments have been made, especially in the countries of the Arabian Peninsula, in educational and social services, so that governments should not be accused of neglecting their subjects. Furthermore, there has developed within the Arab world an increasingly intricate network of channels for economic assistance, ranging from direct aid to "frontline states" to project financing of those producing, selling or drinking alcohol. This reversion to puritan, basic principles can be seen as a reaction to the revolutionary trends which dominated the Arab world from 1956 up until the time of President Nasser's death in 1970. In his own peculiar way Colonel Gaddafi co-operate on monetary issues, and others to expand direct bilateral investment. In this way, the Arab countries could absorb the most advanced technology and socialism greater stability and unity while also at the same time which should outlast hostility towards Israel—when, and if, a settlement is found.

So far, the reaction has been to reinforce the fundamental values of Islam as a bastion against change. Such has been the financial dependence of the oil-rich states on the oil-rich Arab world elsewhere. One example of this pervasive influence is Egypt, a notably cosmopolitan society with a sizeable Coptic community but deeply dependent on Saudi aid towards paying off its debts. Last year a law prohibiting the sale and consumption of alcohol in non-tourist areas was adopted (but not widely enforced).

This year a law of Islamic punishments was drafted by a committee of Moslem religious leaders and legal scholars at the request of the more conservative members of the People's Assembly. After those proposals (legal at least in theory in Libya and the United Arab Emirates) were shelved but they included the cutting off of the right hands of thieves, the stoning to death of adulterers and sodomites, the banning of apostates, and the flogging of those producing, selling or drinking alcohol. This reversion to puritan, basic principles can be seen as a reaction to the revolutionary trends which dominated the Arab world from 1956 up until the time of President Nasser's death in 1970. In his own peculiar way Colonel Gaddafi co-operate on monetary issues, and others to expand direct bilateral investment. In this way, the Arab countries could absorb the most advanced technology and socialism greater stability and unity while also at the same time which should outlast hostility towards Israel—when, and if, a settlement is found.

CONTINUED ON PAGE XII

## APCL-The container service poised to catch Arabian export deadlines

Dubai, Muscat, Dammam, Bahrain, Kuwait.



The chase is on for British exporters in the lucrative Arabian markets. And helping them lead the hunt is the Arabian Peninsular Container Line. It's a joint operation that combines all the expertise, experience and resources of two of the biggest, most successful names in Middle East shipping—P&O Strath Ellerman and the United Arab Shipping Company.

APCL provides the British exporter with the fastest, most frequent door-to-door service, for FCL and LCL cargoes, to all the major Arabian markets.

Sailing every 11 days (from Tilbury and Liverpool) direct to Dubai, Muscat, Dammam, Bahrain and Kuwait. With all other major trade centres in the United Arab Emirates covered by our extensive road haulage network from Dubai.

That's the Arabian Peninsular Container Line. More sailings to more ports. A fast, first class reliable service—a service poised to catch your Middle East delivery deadlines.

For full details regarding the APCL operation contact:

P&O Strath Services Limited  
London—Tel: 01-283 8787  
Or UK Brokers  
Eastern Liner Services Ltd.  
London—Tel: 01-247 5498  
Liverpool—Tel: 051-236 5432

United Arab Shipping Company  
Liverpool—Tel: 051-227 4151  
Or UK Brokers  
Benjamin Ackerley & Sons Ltd.  
Liverpool—Tel: 051-227 5161  
Killick Martin & Co. Ltd.  
London—Tel: 01-448 1488



## P&O Strath-Ellerman UASC



# ARAB COOPERATION AND DEVELOPMENT II

## Evolution of the Arab League

THE ARAB LEAGUE, like many other multi-national organisations, has often been painted as being both weak and irrelevant. That it often seems so is almost inevitable for an organisation which was created with the United Nations very much in mind. Indeed it just came first. The principles of the League of Arab States, known as the Alexandria Protocol, were signed October 14, 1944. Egypt, Saudi Arabia, Iraq, Syria, Lebanon, Yemen and Transjordan signed the League officially into existence on March 22, 1945, but the UN Charter was not signed until June 25, 1945. The Arab League has had one major achievement in the UN in that it was the only Arab to appear to us at any one time, the range of its interests are inevitably not as broad. Moreover, they are of a common language and race.

In spite of the League's inherent weaknesses, it is a fact that, during the 32 years of its existence, it has been most effective when the Arab world has been under stress, divided and without one paramount leader. In such circumstances there is a tendency for the Arab League to fulfil, essentially by default, a sort of unifying role. The corridors of power were largely ignored or had its importance reduced to that of a bit player.

The Arab League's role in the current session of the UN General Assembly demonstrates the League's limitations even at a time when there is no Nasser to put it in the shade. Earlier this month, the League's Foreign Ministers met in Cairo ostensibly to draw up a united strategy for debates on the Arab-Israeli conflict. A common position was reached in protest against Israeli settlements on the West Bank (which even the U.S. has publicly declared as illegal repeatedly), but otherwise the definition of an Arab position on the conflict was hampered by disagreements, sometimes merely vocal, between Egypt and Syria.

Yet sometimes the fiction of unity is undoubtedly useful. The Arab League's role in the

Lebanon is a case in point. No state would pretend that the force is anything in fact other than power for Syrian troops although there are units from Saudi Arabia, Sudan, Libya, the United Arab Emirates, and the Yemen. A credible and cynical assertion would be that Syria had been successful in obtaining Arab League blessing for the furtherance of its regional ambitions. But one day, Syria will have to face the reality of this fiction and choose either to withdraw its troops from Lebanon completely or to drop the fiction of the Arab League's cover and to indicate that it intends to remain as an overt occupying force. However, the main point is that the Arab League has played a significant role — with the permission also of Kuwait, Saudi Arabia, and Egypt — in ending the Arab world's bloodiest internal conflict in modern times.

**Impotent**

Generally, however, the Arab League has been impotent in dealing with both the Arab-Israeli conflict and inter-Arab disputes. It has, for instance, had no effect on the three running this year: between Egypt and Libya, which burst into open war in July, between Algeria and Morocco over Western Sahara, and the continuing Baathist ingitbrings between Syria and Iraq.

If the Arab League's political record within the Arab world is flawed, there is no doubt that its role in promoting relations with blocs has been more successful. This is evident in the protracted dealings with the EEC, and with Africa. The most dramatic reflections of the latter was the Afro-Arab summit in Cairo in March.

However, since the growth of wealth derived from the increase in oil prices after the 1973 Arab-Israeli war, Mr. Mahmoud Riad, the Secretary-General has been giving increasing attention to the development of the organisation's numerous economic agencies. Indeed, this policy decision may well be sometimes merely vocal, in spite of member states' predilection for bilateral relations — a heretofore tactical decision in terms of building up Arab unity rather than politically-based directives.

The Arab League consists of 22 members. Its most recent four members have all in their own way been controversial now that the obviously Arab countries have been accepted. Mauritania admitted in December, 1973, Somalia (February, 1975), and Djibouti (admitted earlier this month) all caused some heart-searching about the extent to which these states were truly Arab. In the end, the desire to extend Arab political influence, particularly along the Red Sea through Somalia and Djibouti, triumphed over these doubts. It is an irony that the PLO was only admitted as a full member in September last year when, as a result of the Lebanese civil war and Syrian pressure, it was in its most weakened political condition for years. In July, the Comoro Islands, lying off Mozambique in the Indian Ocean applied to join the Arab League. In the future, it is possible that Mali or Chad could put forward their applications.

The Arab League is pyramid-shaped like most organisations of its kind, its central organisation is the Council, which meets in March and September of each year. Attached to the Council are 16 committees covering politics, culture, economics, communications, social affairs, law, oil, information, health and human rights. Below that layer come the organisations for carrying out the decisions of the Council. One of the most important of these is the Joint Defence Council headed by the Egyptian Chief of Staff, General Mohamed Ali Fahmy. But also attached to the League are a myriad of pan-Arab agencies of which the most important are the Arab Educational, Cultural, and Scientific Organisation, the Arab Fund for Economic and Social Development, the Arab States Broadcasting Union, the Arab Telecommunications Union, the Arab Economic Unity Council (itself the father to numerous organisations such as the Arab Monetary Fund and other financial organisations), and the International Arab Organisation for Social Defence against Crime. Indeed, the League tries to provide committees and organisations to co-

ordinate every facet of life in the Arab countries.

The Arab League has had only three secretaries-general during its existence: Abdel-Rahman Azzam (1945-52), Abdel-Khalq Hassouna (1952-1972), and Mahmoud Riad. Each in their own way was well suited to cope with leading the League at the particular time in Arab history in which they were in power.

Azzam, a long standing Arab nationalist of impeccable credentials, had the authority which none of his successors could have had. While there were only seven members, his authority was often considered to be higher than that of the Prime Ministers of individual states. He had been deeply involved in the establishment of the Arab League, which he saw as a vehicle for Arab nationalism.

With Hassouna's appointment charismatic leadership was replaced by patient statesmanship. Hassouna has frequently been accused of having been too involved in the minutiae of the daily running of the organisation, and of staying in office too long. But the fact remains that he did much to raise the standard and intellectual calibre of officials in the League.

In many ways, Hassouna was fortunate in succeeding Azzam a few months after Nasser's overthrow of the Egyptian monarchy, for it meant that he could not be swept away too on the pretext of being an official, albeit of a pan-Arab rather than Egyptian organisation, tainted by direct association with the monarchy. Furthermore, Hassouna had the chance to run the League without interference while Nasser made up his mind as to what his attitude towards it should be.

Nasser meanwhile discovered Arab nationalism, and after the Suez campaign of 1956 emerged as a pan-Arab figure, unchallenged in modern Arab history. Inevitably, he saw the Arab League as some sort of alternative focus of Arab nationalism, and as a result he tended to treat the Arab League either as an anachronism (he even threatened to withdraw after the break-up of the United Arab Republic with Syria in 1961), or

as an instrument to be used for his own and Egypt's ends. It was during this period that both Tunisia and Iraq temporarily withdrew from the League, side-effects of Nasser's uncompromising approach towards Arab nationalism. Nevertheless, Nasser must be credited with having boosted the Arab League's standing by entrusting the responsibility for convening Arab summits, the first of which was held in January 1964.

It was during Hassouna's time that a fundamental weakness of the League became apparent. Article 7 of the Pact states that "Unanimous decisions of the Council shall be binding upon all member states of the League; majority decisions shall be binding upon those states which have accepted them." This meant in effect that any state which felt like it could behave exactly as it wanted. Nevertheless, it was Hassouna's credit that he was able, as a result of his low-profile diplomatic training, to keep the Arab League intact. He even undertook the notable initiative of accepting Kuwait's

independence in 1961, and forming a truly Arab force to fend off Iraq's claims to that state. In addition, it was during Hassouna's period in office that the proliferation and establishment of specialised agencies took place. The first Arab League offices were opened abroad, and the first diplomatic contacts with Europe and Africa and Asia developed.

**Prestige**

Since Nasser's death, the prestige and role of the Arab League has increased. To some extent this reflects the fact that President Sadat needs it, and in return he assures that when Council meetings are held in the past — at a senior level, in these circumstances, Mahmoud Riad has been able to be a more active Secretary-General than his predecessor. Initially, Nasser's Foreign Minister, it took him some time to come to terms with the League — and this was sensed by his staff. But now that Riad associates him-

self closely with the League — a sentiment now returned by those who work for him — he has been able to adapt usefully to the Arab League's role in current circumstances. There have been some excesses of optimism. At the 1974 Rabat Arab summit, it was resolved to make these gatherings under Arab League sponsorship an annual event. The divisive effects of the Lebanese civil war put paid to that hope.

Mr. Riad has been successful in enlarging the role of the League as a political and economic negotiator on behalf of the Arab States as a whole. This can be seen in the dialogues with Europe and the apparently successful conference held in Cairo in March in co-ordinate aid with African States. As for Mr. Riad's aims according to Arab League officials, they are concentrated on four main points.

The first is to develop further the League as an agency for Arab economic development. (There are obvious limits in this regard that Riad associates him-

self with the League — a sentiment now returned by those who work for him — he has been able to adapt usefully to the Arab League's role in current circumstances. There have been some excesses of optimism. At the 1974 Rabat Arab summit, it was resolved to make these gatherings under Arab League sponsorship an annual event. The divisive effects of the Lebanese civil war put paid to that hope.

Mr. Riad has been successful in enlarging the role of the League as a political and economic negotiator on behalf of the Arab States as a whole. This can be seen in the dialogues with Europe and the apparently successful conference held in Cairo in March in co-ordinate aid with African States. As for Mr. Riad's aims according to Arab League officials, they are concentrated on four main points.

The first is to develop further the League as an agency for Arab economic development. (There are obvious limits in this regard that Riad associates him-

self closely with the League — a sentiment now returned by those who work for him — he has been able to adapt usefully to the Arab League's role in current circumstances. There have been some excesses of optimism. At the 1974 Rabat Arab summit, it was resolved to make these gatherings under Arab League sponsorship an annual event. The divisive effects of the Lebanese civil war put paid to that hope.

Mr. Riad has been successful in enlarging the role of the League as a political and economic negotiator on behalf of the Arab States as a whole. This can be seen in the dialogues with Europe and the apparently successful conference held in Cairo in March in co-ordinate aid with African States. As for Mr. Riad's aims according to Arab League officials, they are concentrated on four main points.

The first is to develop further the League as an agency for Arab economic development. (There are obvious limits in this regard that Riad associates him-

self closely with the League — a sentiment now returned by those who work for him — he has been able to adapt usefully to the Arab League's role in current circumstances. There have been some excesses of optimism. At the 1974 Rabat Arab summit, it was resolved to make these gatherings under Arab League sponsorship an annual event. The divisive effects of the Lebanese civil war put paid to that hope.

Mr. Riad has been successful in enlarging the role of the League as a political and economic negotiator on behalf of the Arab States as a whole. This can be seen in the dialogues with Europe and the apparently successful conference held in Cairo in March in co-ordinate aid with African States. As for Mr. Riad's aims according to Arab League officials, they are concentrated on four main points.

The first is to develop further the League as an agency for Arab economic development. (There are obvious limits in this regard that Riad associates him-

self closely with the League — a sentiment now returned by those who work for him — he has been able to adapt usefully to the Arab League's role in current circumstances. There have been some excesses of optimism. At the 1974 Rabat Arab summit, it was resolved to make these gatherings under Arab League sponsorship an annual event. The divisive effects of the Lebanese civil war put paid to that hope.

Mr. Riad has been successful in enlarging the role of the League as a political and economic negotiator on behalf of the Arab States as a whole. This can be seen in the dialogues with Europe and the apparently successful conference held in Cairo in March in co-ordinate aid with African States. As for Mr. Riad's aims according to Arab League officials, they are concentrated on four main points.

The first is to develop further the League as an agency for Arab economic development. (There are obvious limits in this regard that Riad associates him-

self closely with the League — a sentiment now returned by those who work for him — he has been able to adapt usefully to the Arab League's role in current circumstances. There have been some excesses of optimism. At the 1974 Rabat Arab summit, it was resolved to make these gatherings under Arab League sponsorship an annual event. The divisive effects of the Lebanese civil war put paid to that hope.

Mr. Riad has been successful in enlarging the role of the League as a political and economic negotiator on behalf of the Arab States as a whole. This can be seen in the dialogues with Europe and the apparently successful conference held in Cairo in March in co-ordinate aid with African States. As for Mr. Riad's aims according to Arab League officials, they are concentrated on four main points.

The first is to develop further the League as an agency for Arab economic development. (There are obvious limits in this regard that Riad associates him-

## OAPEC aims at greater coordination

AFTER nearly a decade of existence the Organisation of Arab Petroleum Exporting Countries has already proved itself to be one of the most effective vehicles for Arab co-operation in furthering the common interest of the ten producing states which make up its membership. It could also be said to be serving the interest of the oil producing world at large. That is wholly appropriate because the Arab world's strength derives largely from petroleum resources.

For the consumer, OAPEC may be mainly identified with the cutbacks in oil production implemented in the early days of the October War of 1973 and the embargo on supplies to the U.S. which was not lifted until the following spring. True, the crucial decisions were taken at an extraordinary meeting of oil ministers of OAPEC members. However, the session was not in the statutory framework of OAPEC and the Arab summit held in Algiers took responsibility for deployment of the oil weapon.

Essentially, however, the aims of OAPEC are the promotion of co-operation among members "in the various phases of the oil industries activities" (to quote the secret article of its constitution) and to maximise the return from members' hydrocarbon assets. Its purpose has been expressed in the form of four major joint ventures and continuing consultation under its aegis that fit well into the wider pattern of pan-Arab collaboration.

OAPEC's ten members constitute a powerful group. Last year they produced at the rate of 10.4m. barrels a day or the equivalent of 33 per cent. of "free world" production, but a very much higher proportion — about two-thirds — of exports and about half the world's proven reserves. From its foundation OAPEC has never aimed at duplicating the work of OPEC nor encroaching upon its basic aim of maintaining and improving the real value of petroleum earnings. But it has taken care to co-ordinate its policies with it. However, although Arab oil ministers may have taken the opportunity afforded by OAPEC meetings to exchange views on basic pricing issues, in practice they have found themselves in different camps at crucial moments of OPEC. Meanwhile, OAPEC has evolved in a way that was not envisaged by the founder members — Saudi Arabia, Kuwait and Libya — early in 1968.

The concern of these three non-OPEC producers, the Libyan resolution did not take place until September 1969) is to establish a consultative body that would allow them, rather than a radical majority of Arab League states, to take decisions regarding their vital asset. In the previous summer at the outbreak of the June War Saudi Arabia, Libya and Iraq had halted oil shipments completely for a fortnight. Differences subsequently arose between Saudi Arabia and Iraq over the selective embargo the latter insisted upon maintaining against the U.S., the U.K., West Germany, South Africa and Rhodesia. Not until Saudi Arabia, Kuwait and Libya had agreed at the Khartoum summit to contribute \$349m. annually in grant aid which was then a significant sum in the countries concerned at that point, to the confronta-

tion states, was the co-head given for a resumption of exports in full.

The statutes of what was initially a restricted and conservative club laid down that only states for which oil was "the main and basic" source of income should be considered as candidates. Moreover, they gave each of the members the right to veto an application. However, with the overthrow of the monarchy in Libya in 1969 and the emergence of Colonel Gaddafi's regime, OAPEC underwent a transformation. The result was, if anything, to depoliticise the organisation — the part subsequently played by the oil ministers in deploying the oil weapon could be seen as that of a technical committee acting on behalf of the Arab League.

In May membership was broadened to include not only traditionalist Abu Dhabi, Dubai, Bahrain and Qatar but also, at Libya's insistence, radical Algeria as well. Iraq, Egypt and Syria were admitted in March 1972, having pulled out shortly afterwards because of the decision to locate the OAPEC hydrodock in Bahrain. Dulai is now represented, technically at any rate, by the UAE.

**Ventures**

First of the OPEC joint ventures to become operational was the Arab Maritime Petroleum Transportation Corporation which took institutional shape in May 1972 when all the members with the exception of Egypt and Syria formed the company with an authorised capital of \$500m to be shared equally by the others. The creation of AMPTC was a collective fulfilment of the Arab oil producers' aspiration to carry as much as possible of their own oil to their own vessels. Kuwait had long previously started to build up its own fleet. Algeria, Iraq and Libya were in the process of developing their own.

AMPTC's fleet now numbers eight vessels, totalling over 2m dwt, flying the flags of different members states. Also on order are two large gas carriers being constructed in France by Chentier de l'Atlantique for delivery in 1978 and 1979. However, whilst member states have been busily building up their national capacity and giving varying degrees of preference. It has by no means been plain sailing for AMPTC. AMPTC has not, of course, been alone in suffering operating losses. Faced by them, however, the management has called for more effective support from shareholder governments. One proposal is for preferential tanker prices. Also demanded is agreement that a minimum of 10 per cent. of Arab exports should be carried in Arab-owned vessels. Mr. Abdel-Rahman Sultan, managing-director of the Kuwait-based concern, has suggested that the major oil companies have discriminated against AMPTC. He has also pointed out that his company has to bear the cost of a training programme.

At the last ministerial council meeting of OAPEC government representatives refused to grant any flag preference and were only prepared to concede that national tankers should be given priority when their terms were comparable with those of others. But it was decided in principle that shareholders would con-

tribute for operating losses — with the most likely method being to increase the amount of AMPTC's capital by the amount of the deficits incurred.

Next month will see the Arabian Shipbuilding and Repair Yard in Bahrain receive its first tanker for servicing only 18 months after work started on the project, although the formal opening is not expected until December. The company was established at the end of 1973 by Saudi Arabia, Kuwait, the UAE, Bahrain, Qatar, Libya and Iraq. As a firm concept it even predates AMPTC having been originally proposed back in 1968 by Sheikh Ahmed Zeki Yamani, Saudi Minister of Oil, not long after the formation of OAPEC. It took no less than six years before the details were agreed upon and Hyundai, the South Korean company, was awarded the contract for construction.

One major reason for the delay was the long and unsuccessful search for an equity partner able to furnish the necessary design expertise and provide management for the project. Finally ASRY secured the services of Lisnav, the Portuguese ship repairer, as consultants under a service contract.

The authorised capital of ASRY has undergone several increases up to the most recent 14 month which brought it to \$340m. The original cost estimate of \$100m compared with the \$143m, value of the contract signed in 1974 for the first phase including the main dry dock which will be able to accommodate tankers of up to 200,000 dwt.

Despite the well-planned labour training programme and the vigorous efforts over the past two years of the affiliated Arabian Shipbuilding and Repair Yard (ASRY) and the indefinite period it will experience losses. Yet, Saudi Arabia — anxious about Bahrain's economic viability and the maintenance of full employment there — will be prepared to carry the losses. But at least in terms of profit it looks a better bet than the rival Dubai project for which technical and management expertise has yet to be secured. It is unlikely to be operational for a year or so, giving ASRY a head start.

With its statute having been ratified in the autumn of 1974 the Arab Petroleum Investment Company started its operations from headquarters in Dammam towards the end of the following year when it authorised capital of \$836m (S1,020m), of which one-third has so far been paid up. The objective of APIC is to assist in the financing of projects in member countries, other Arab states and non-Arab places where OAPEC has interests. In its first year of activity it began in a relatively modest way by financing in loan issues denominated in Saudi riyals and Kuwaiti dinars for the Compagnie Nationale Algerienne de Navigation Turque (POTRELCO) and SAMIT in Morocco and the Suez-Mediterranean oil pipeline. However, taking on an altogether new dimension this summer it decided to participate as manager, underwriter and major lender in a \$100m worth of \$300m for the Qatar General Petroleum Corporation, \$100m for the Jordanian Govern-

for the financing of a hydrocarbon-related industrial and shipping ventures.

Most recent of OAPEC actions is the Arab Petroleum Services Company which formally established in at the beginning of the year with an authorised capital of 100m. Libyan dinars (80 of which LD15m has so far subscribed). It is an off-holding company under the umbrella of which will be opened various services for the petroleum in Disappointingly far is a long-standing joint Arab Textile Training Institute to specialise in producing instruction petroleum and other industries throughout the Arab world still hanging fire. Having endorsed by the minister November, they decided their last meeting in May it should be indefinitely postponed. It is now to be sidetracked in the context of OAPEC's five-year project which is being formulated. A factor appears to have a dispute over the location. Nevertheless, OAPEC up a collective determination invest in experience as assets. It is already in various aspects of oil technology such as pipelines. The organisation made itself felt at various Arab meetings such as the Arab Conference on Petroleum Resources at Rabat in April this year. OAPEC organ highly successful oil-seen Tokyo last year. It is organising a major Arab Energy Centre which will take place Abu Dhabi early in 1978 ready to be developing something of a "think-tank" for the Arab oil producer they weigh up the options for diversifying economic and making the use of their valuable, but ing, asset.

MIDMAC ORIENT

**GULF HOTEL TOWER, Doha**  
A 200 bedroom extension to Qatar's premier hotel, constructed by Orient Doha.

**VIP GUEST PALACES, Qatar.**  
A luxury complex of villas completed in six months by Midmac Contracting.

**DESALINATION PLANT Ras Abou Aboud, Qatar.**  
Partly constructed by Orient Doha as subcontractor to Weir Westgarth Ltd. MIDMAC ORIENT's present resources cover the erection of process plants and pipe fabrication. Its general workshops provide technical support such as radiography and NDT.

**MIDMAC ORIENT Engineering & Construction**  
BEIRUT, LEBANON, P.O.B. 113-5558  
Tel: 350270 Telex: 20318 LE

**REPRESENTATIVE OFFICES:**  
DOHA - QATAR P.O.B. 1758 Tel: 25125 Telex: 4240 DH  
RIYADH - SAUDI ARABIA P.O.B. 2569 Tel: 63902 63921  
SHARJAH - UAE P.O.B. 6074 Tel: 57161  
DUBAI - UAE No. 11 Ibrahim Abdallah Bldg.  
LONDON - UK 64 Park St. Tel: 4894248 Telex: 26136

**WATER TOWER, Qatar.**  
One of several completed by Orient Doha in Qatar using new construction techniques.

مركز الميثاق

The League of Arab States... The Council of Arab States... The Members of the League of Arab States... In 1957 the Executive Committee of the Council of Arab States... external tariffs, free common economic area...

Richard Jc



League

# THE ARAB LEAGUE



The Members are: Algeria, Bahrein, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, P.L.O., Qatar, Saudia Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, Yemen Arab Republic, Yemen People's Democratic Republic.

The League of Arab States is an association designed to strengthen and consolidate the ties which bind all Arab countries and to direct them towards the welfare of the Arab world, to improve its conditions, ensure its future, and realise its hopes and aspirations.

The Council of the Arab League, the Arab League's supreme organ, consists of 22 members, including the Palestine Liberation Organisation and the newest member, Djibouti, which joined the League of Arab States after gaining independence this year.

The Members are: Algeria, Bahrein, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, P.L.O., Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, Yemen Arab Republic, Yemen People's Democratic Republic.

The League of Arab States has ten permanent committees for political, cultural, economic, social, military, legal affairs, information, health, communications and Arab human rights. The secretariat of the League of Arab States has departments of economic, political, legal, cultural, social and labour affairs, as well as for petroleum, finance, Palestine, health, information, secretariat, communications and protocol.

In 1957 the Economic Council approved a convention for Arab Economic Unity and in 1964 the Council of Arab Economic Unity was set up. The aims of the Council include removal of internal tariffs, establishing common external tariffs, freedom of movement of labour and capital and adoption of common economic policies.

The Charter of Arab Cultural Unity aims to promote the ideals of Arab Cultural Unity, particularly by establishing specialised Institutes propagating Arab ideals and preparing research workers specialising in Arab civilisation. ALESCO, the Arab League Educational, Cultural and Scientific Organisation, held its first session in Cairo in 1970.

The Organisation includes: Arab Regional Literacy Organisation, Institute of Arab Research and Studies, Institute of Arab Manuscripts, Permanent Bureaux for Co-ordination of Arabisation in the Arab World, Museum of Arab Culture, Arab States Industrial Development Centre.

Other specialised Institutions include the Arab States Broadcasting Union, Arab Financial Institution for Economic Development, Arab Postal Union, Arab Telecommunications Union, Arab Labour Organisation, Arab Organisation for Standardisation and Metrology (ASMO), Arab Air Carriers' Organisation (AACO), Arab Cities Organisation, Arab Organisation for Administrative Sciences, Arab Centre for Dry Region and Territories Studies, Arab Fund for Economic and Social Development, Arab Academy for Maritime Transport, Arab Maritime Transport Company.

Special bureaux established include the Office for the Boycott of Israel, and International Arab Organisation for Social Defences. The latter specialises in criminal matters and comprises the International Arab Bureau for Narcotics, The International Arab Bureau for the Prevention of Crime and the International Arab Bureau of Criminal Police.

The League of Arab States asserts its desire for a just peace in the region.

For further information please write to :

Mr. Abu Seif Radi  
Head of Information Section  
THE ARAB LEAGUE  
Tahrir Square  
Cairo Egypt

Telephone: 811890 or 811960 Telex AL NASR 28459

ms at g  
dination



ARAB COOPERATION AND DEVELOPMENT IV

# Arab Monetary Fund

THE ARAB Monetary Fund (AMF) is unlikely to be able to consider its first loan applications before the latter part of 1978, but already there are signs that a conflict of interest may develop among the 21 members (including the Palestine Liberation Organisation) over its mode of operations.

The main short-term objective of the AMF is to finance the balance-of-payments deficits of member-states. The poorer Arab states see the fund as a softer version of the IMF: the richer ones as a direct copy of the Washington institution with the difference that it is both controlled by and serves Arabs.

A convention setting up the fund was signed in Rabat, Morocco, on April 28, 1976. A permanent working executive was established at a meeting of the 21 members in April this year in Abu Dhabi, where the AMF is headquartered. The fund's capital has been set at \$570m, 25 per cent of it paid up. One Arab dinar is equivalent to three of the IMF's special drawing rights (SDR) = \$1.16).

## Operational

The AMF managing director, former Iraqi minister of planning Dr. Jawad Hashim, began his job in May, and the fund is just becoming operational. Hashim is determined to make the AMF a major financial institution within a year. UAE finance minister Sheikh Hamdan bin Rashid al-Maktoum is the fund's chairman.

The poorer Arab states are clearly hoping that they will be able to obtain loans from the AMF for financing their deficits without taking the full dose of economic medicine which can be prescribed by the IMF for its upper credit tranches. The rich Arab states will probably want to channel more of their general-purpose aid through the AMF, hoping that its multilateralism will make it easier for the Fund to impose necessary economic measures than it would be for them on a bilateral basis.

The former view was put by Dr. Abdel-Hassan Zalzal, assistant secretary-general of the Arab League, at the Abu Dhabi meeting in April. He said the foundation of the AMF would lessen Arab states' dependence on the IMF and avoid the undesirable economic

policies and reforms required by international institutions.

But managing director Hashim is on the record as saying that member-states should not regard the new pan-Arab institution as a soft option. The AMF not only intends to follow IMF procedures in granting credits: its charter was almost entirely drawn up by the IMF and IMF personnel are acting as advisers. On the other hand, it does seem probable that the AMF would be more tolerant than the IMF over measures such as those proposed by the IMF which precipitated serious rioting in Egypt in January.

Though AMF lending procedures will follow those of the IMF, the AMF's scale of assistance appears to be wider. Members will be able to borrow up to four times their contributions in one year and the interest charged will not be as high as the IMF's. But assistance will be provided only after an AMF team has visited the applicant country to assess conditions there and after the applicant has undertaken to apply recommendations on economic policy laid down by the AMF executive board.

## Supplement

To supplement its resources, the AMF will be able to borrow from its members, from Arab and foreign institutions and in the international markets. The fund is authorised to borrow and issue guarantees on behalf of AMF members up to 200 per cent of its authorised capital of \$250m. It is possible that the AMF might consider co-financing operations with commercial banks. Dr. Hashim has also hinted that some forms of project-financing — especially for the promotion of exports — might be considered in the future, though he stresses that this form of aid is more properly the domain of the Kuwait-based Arab Fund for Economic and Social Development.

A major, longer-term aim, according to Hashim, is the unification of Arab currencies, towards which the creation of the Arab dinar is the first step. The way to unification, however, is likely to be long and trying. A unit of account like the Arab dinar is one thing; a fully hedged Arab currency quite another — at least until the vast gap between the rich and the poor Arab states has been significantly narrowed. Even the achievement of a Gulf currency is posing more difficulties than were at first envisaged. But initially the AMF aims to facilitate the exchangeability of Arab currencies. Its functions include advising on economic reforms and overseas investments.

Brian Thompson

# Expanding aid effort

THE MANAGERS of the Arab world's seven big development funds now meet twice a year to spend a week discussing the coordination of their lending programmes. This reflects not only the rapid growth in the number of funds since the 1973/74 oil price explosion, but also the fact that the funds all have broadly similar objectives and encounter many of the same problems. Arab project aid, always a sophisticated business, is becoming more complex.

The real boom in Arab aid distribution has taken place since 1973 with the sudden swelling of the oil producers' surplus. Before that date Kuwait was the only large scale Arab aid donor. The oil price rise made Saudi Arabia and Abu Dhabi into chronic large scale surplus states, while the economic havoc caused by the oil price rise in non-oil producing states made more generous aid giving almost essential for political reasons.

The total amount devoted to grants and aid by Arab states from 1974 to 1976 is put at about \$14bn. After making these payments and absorbing what they could in imports and service payments the oil exporting states accrued a total surplus of about \$102bn, over the three years. For 1976 the figures were: aid \$4.4bn, compared with an estimated total surplus of \$38.9bn.

A detailed breakdown of the grants and aid figure is hard to arrive at but not all the money stays in the Arab world. The Arab surplus states are big contributors to the IMF oil facility and to World Bank loans. They have also pledged money to the OPEC Special Fund which is designed to help developing countries not just with project aid but also with straight balance of payments support. They have paid money to the OPEC Special Account, which has made interest-free loans to oil-less Arab states, and they contributed to the OPEC-sponsored Special Arab Fund for Africa. Intended specifically to help the African states cope with the oil price rise, the Fund has now been taken over by the Arab Bank for Economic Development in Africa (ABEDA).

Leaving aside contributions to international organisations, the largest disbursements by the Arab surplus states probably go to "front line" states, in the Middle East conflict zone. Egypt, Syria and Jordan. Kuwait alone pledged \$1bn during the course of the 1973 war to these states and in 1974 was one of the countries which agreed to pay them \$500m, at the Rabat Summit. It is believed to have

contributed \$3.1bn, since 1967. Abu Dhabi contributes three-quarters of all its aid to the front-line states and the Palestine Liberation Organisation. Saudi Arabia, Kuwait, the United Arab Emirates and Qatar contribute to the Gulf Organisation for Developing Egypt which is designed to tide Egypt over its present economic difficulties, in collaboration with the IMF and World Bank and has promised \$1.5bn.

## Variety

Next on the list come the wide variety of grants and loans disbursed through the Finance Ministries of the oil surplus states to other Arab (and, in some cases, non-Arab) states. These disbursements are effectively acts of foreign policy, especially those of Saudi Arabia whose recent beneficiaries include the two Yemens, Somalia and Sudan. Under this heading also come the very generous gifts made by Sheikh Zaid of Abu Dhabi, President of the UAE, to other states.

By comparison with these general support grants and loans the sums actually disbursed by Arab project aid funds sometimes appear rather insignificant. Even the fund, with the largest capital, the Kuwait Fund for Arab Economic Development, disbursed \$170m in 1976 compared with total grants and aid disbursement by the State of about \$1bn. Though Saudi Arabia contributes to several aid funds, its own Saudi Fund for Development (SFD) had disbursed less than \$100m, by early this year, compared with total Saudi disbursements of \$2bn, in 1976 alone.

The reasons for the relatively low level of project aid disbursements are not hard to find. Apart from the Kuwait Fund (founded in 1961 and by far the most experienced and respected of the Arab funds), the Arab Fund for Economic and Social Development (which was founded in 1968 but did not start operating until 1973) and the Abu Dhabi Fund for Arab Economic Development (founded in 1971) all the other organisations have started since the oil price rise. Quite apart from the time taken to establish funds with a very limited supply of management talent in the region, project aid is by its nature difficult to disburse fast. There are limits on the recipient country's administrative ability to identify and propose viable projects, and on a fund's ability to assess them. There are limits to the number of viable projects a country can absorb at any one time.

Nevertheless the financial assistance given by the Arab aid funds is probably of at least as much long-term value as the more lavish general grants and loans. There are considerable safeguards to make sure that the money is not misused; and the relative political independence of the funds means that a developing country can present a project to an appropriate fund in the reasonable certainty that it will be considered on its merits. Once funds have been committed to a project they are likely to flow regularly provided work keeps up, whereas the flow of funds handled by the Ministry of Finance of a donor country can be subject to political pressures. Apart from the Arab Fund for Economic and Social Development (AFESD) all the big seven funds assist non-Arab states; indeed the Islamic Development Bank and the Arab Bank for Economic Development in Africa are primarily concerned with non-Arab countries.

The Kuwait Fund for Arab Economic Development is the doyen of the Arab funds. Established shortly after Kuwait became independent it quickly laid down standards of quality and objectivity which the second generation of funds has tried to emulate. Despite the complexity of the task of assessing projects the Kuwait Fund has a reputation for fast work, and can process projects faster than many Western aid agencies. It has also taken the lead in proposing projects and suggesting economic policies to Arab states.

By 1974 the Kuwait Fund had financed 47 loans in 12 Arab countries worth a total of \$561.4m. In that year its authorised capital was increased from \$700m to \$3.45bn, and the scale of its lending sharply increased, so that in 1974 alone commitments totalled \$322m, and disbursements \$170m. The first loans to non-Arab states were made in 1975-76. The Kuwait Fund has traditionally concentrated on infrastructure projects: 54 per cent of the \$705m disbursed in 1974 to African and Asian countries in 1975-76 was devoted to power projects, 22 per cent to agriculture, 16 per cent to industry and 8 per cent to transport and communications.

The Arab Fund for Economic and Social Development, also based in Kuwait, was originally proposed by Kuwait in 1967 and won Arab League approval the next year. But it took time for contributions to flow in and the fund did not start operating until 1973, by which time pledged subscriptions stood at \$270m. Saudi Arabia, with little disposable surplus until the early 1970s, did not join until

1974. The Fund's authorised capital is now \$1.4bn, of which a little over \$700m, should have been paid in. The biggest contributors are Kuwait, Saudi Arabia and Libya, and by the end of 1975 the fund had helped finance 18 projects totalling more than \$1bn, of which \$121.5m came from the Fund. The Arab Fund tries to give priority to inter-Arab projects and it is also anxious to assist social welfare projects.

The Abu Dhabi Fund for Arab Economic Development was set up before Britain withdrew from the Gulf in 1971 and now has capital of \$500m. It lent to the first non-Arab States last year, though the lion's share of its disbursements went to Arab States. By September 1976 the amount committed had reached \$415m, although only \$44.5m had been disbursed. The fund is gradually stepping up its supervision of projects as its staff acquires greater strength. It has taken control of \$168m worth of loans made by the Abu Dhabi Government.

## Committed

Four other major funds got underway in 1974 and 1975. Saudi Arabia set up the Saudi Fund for Development (SFD) which by early this year claimed to have committed \$1.6bn, but had disbursed less than \$100m. It has signed 36 loan agreements in its first two years of operation, and about half its commitments are in the Arab world. Its paid up capital of \$1.6bn, is to be raised to \$2.7bn. In the non-Arab world the SFD is supporting projects in South Korea (from which Saudi Arabia draws some of its most hard working labour), Congo-Brazzaville and Guinea-Conakry, and Brazil and Ecuador have also had outline commitments for finance.

Iraq established the External Iraq Fund for Development in 1974 with an authorised capital of \$500m, but it appears to have pursued a fairly unobtrusive lending policy, though Iraq itself is thought to have disbursed nearly \$1bn, in multi-lateral and bilateral aid last year.

While all the other funds give loans on generous concessionary terms the Islamic Development Bank operates according to sharia law and charges no interest. Set up in 1974 by the Islamic Summit Conference, at the instigation of Saudi Arabia, it started operating in 1975 and is based at Jeddah. It has 32 members ranging from Malaysia to Cameroon, but the largest subscriber to its paid up capital

of 750m Islamic dinars (1 ID = 1 SDR) is Saudi Arabia, followed by Libya, the UAE and Kuwait. So far the IDB has backed five projects, with loans, equity participation or joint participation, in Cameroon, Jordan, Sudan, Somalia and Bangladesh. The IDB regards itself as more than a bank but rather as the spearhead of a new economic order for the Islamic world, channelling Arab oil money to other Islamic countries and practising strict Islamic rules on the use of money. Because it cannot charge interest on its funds the IDB is having to search hard to find viable means of employing its surplus funds.

The last of the big seven development funds is the Arab Bank for Economic Development in Africa, known as ABEDA or—in French—as RAEDA. Based in Khartoum, ABEDA was established in 1975 after a decision by the Arab Summit in Algiers in November 1973. It is purely devoted to assisting African countries using Arab finance, and as well as making concessionary loans its role is to solicit the flow of Arab funds to African states by co-financing projects, and to provide technical assistance. The biggest subscribers to ABEDA's capital (now authorised at \$886.5m) are Saudi Arabia, Libya, Iraq, Kuwait and the UAE. ABEDA has been very active since its formation: it has agreed more than 20 loans totalling more than \$160m, and received a big boost at the Afro-Arab conference in Cairo last March, when Saudi Arabia, Kuwait, Qatar and the UAE pledged an extra \$180m, to ABEDA's capital.

In a region where experienced executives are in short supply the performance of Arab aid funds is highly dependent on calibre and character of their chief executive, and men like Mr. Abatif al-Hamad, of the Kuwait Fund, Dr. Hassou Abbas Zaki and Mrs. Nasser al-Noweis of the Abu Dhabi Fund, Dr. Cbedly Ayari of ABEDA, Dr. Mansour Turki, of the Saudi Fund, and Dr. Ahmed Mohammed Ali, of the IDB, are very much the driving force behind their institutions. The growth in the number of funds has made the problem of executive capacity worse, even though the number of skilled Arabs is constantly increasing. Even the Kuwait Fund is finding itself seriously understaffed to cope with the upsurge of work as it expands into the non-Arab world, but it is naturally in a much stronger position than institutions like the Saudi Fund which are starting from scratch. The funds are trying to solve the problem by much greater

CONTINUED ON PAGE VI

# What's the TD Bank doing in the U.A.E. today?

...living up to its worldwide reputation.

Throughout the world, wherever innovative company management needs creative corporate banking you'll find Toronto Dominion.

For example, Toronto Dominion is in Abu Dhabi and Dubai, offering a complete banking service in the Gulf.

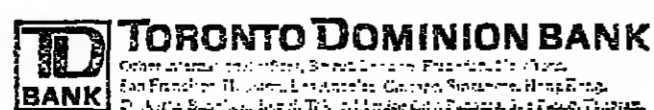
Through skills developed over 120 years, and 948 branches world wide, we've helped structure and see through such projects as, cement factories, schools, desalination plants, roads, dry docks, shipping and manufacturing.

Our branches may be relatively new in Abu Dhabi and Dubai but if you contact us, you'll find that we have a great deal of experience in the area.

And these are our men on the spot to contact:

Abu Dhabi Branch Manager: William H. Eagle P.O. Box 2664 Abu Dhabi U.A.E. Tel: 4550. Cable: "TORBADOM" Abu Dhabi. Telex: 2538 A H Tordom.

Dubai Branch Manager: Brian R. Topliss P.O. Box 2294, Dubai U.A.E. Tel: 33340. Cable: "TORBADOM" Dubai. Telex: 5802 DB.



The bank where people make the difference.

# Secure framework for investment

ONE OF THE major roles of the now famous Kuwait Fund for Arab Economic Development, the Kuwaiti equivalent of the World Bank, has been to provide trained staff for other regional investment and aid institutions, and to act as a melting pot for ideas and a source of new development thinking. Although the idea for the multinational Arab Fund for Economic and Social Development did not come originally from the KFAED, much of the thinking which lies behind the emphasis it places on social development evolved in Kuwait. The new fund, furthermore, took as its president a member of the KFAED's staff (and former Lebanese Minister of National Economy), Saeb Jaroudi, and took on the KFAED's own director general, Adolatif al-Hamad, as one of its directors.

The Inter-Arab Investment Guarantee Corporation owes still more to the Kuwait Fund. Not only do several of its staff come from the Fund, the idea for the Corporation was originally put forward by Adolatif al-Hamad (when he was addressing the first Arab Industrial Development Conference in 1968) and the work of establishing the Corporation and canvassing potential members was undertaken by Kuwait Fund staff working out of the Kuwait Fund offices.

## Commercial

As it was put together by the Kuwait Fund staff and groups of Arab "experts" the Corporation is essentially a commercial institution: it may insure a casino but not a library established by a philanthropic foundation. The assets it will insure fall into three categories: loans, equity investments and investments made by contractors as part of their work in carrying out their contracts. Both the recipient country and the country of origin must be shareholders in the Corporation, although earlier this year it was

decided that investments by joint Arab-foreign banks and other financial institutions based outside the Arab world should be eligible for insurance. Customers may be private citizens, state corporations or governments—though in practice it has never been envisaged that "strong" parties such as governments will need to use the Corporation because they are able to retaliate against nationalisation and moratoria on debts in recipient countries by cutting off the flow of new aid loans.

The risks that the Corporation will underwrite are nationalisation and related threats such as the cancellation of debts; damage caused by war, civil disturbances and coups d'état; and losses incurred through restrictions on the repatriation of profits—provided that the restrictions are imposed after the investor has committed his capital. If it wishes, the Corporation may refuse to insure investments in high-risk states—a problem which is now much less severe than it was when the Corporation was proposed in 1966—but it may not charge an investor a higher premium purely on the basis of the political system of the recipient country.

Unfortunately the Corporation has not so far been very successful—though this has in no sense been the fault of its own management. For the first two years of its existence it suffered from the fact that Saudi Arabia did not become a shareholder (thus depriving the Corporation of one of its two major sources of investors), presumably on the grounds that insurance is regarded by strict Islamic doctrine as an attempt to defy the will of God and is therefore prohibited. When the Saudis finally joined in June this year, only Bahrain, Southern Yemen and Somalia remained non-members. None of these States had actually said

that they would definitely not join; indeed the Somalia had agreed to the scheme in principle, so it was assumed that each of their different reasons had decided that they would derive little benefit from membership. Bahrain is an obviously secure place for investment, while the chances of the other two States receiving, or even welcoming, private investment from other Arab States are remote.

## Capital

A further problem has stemmed from the small size of the Corporation's capital, now some \$68m, due to be paid up over the next five years. On the basis of the rule that it may take on liabilities of up to five times its capital, this rule limits it to insuring risks totalling no more than \$340m. This has not helped to make the Corporation appear a big and conspicuous institution in the Arab world, but the main practical difficulty has stemmed from another rule that the Corporation may not commit more than 10 per cent of its capital plus reserves to a single contract—unless the project involved is a joint-Arab one (involving two recipient countries) or occupies an important place in the Corporation's schedule of priorities, in which case the limit rises to 20 per cent of capital plus reserves.

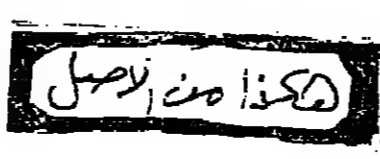
This regulation has actually forced the IAIGC to turn away business on occasions, because although the equity investments involved in the proposals submitted to it are often quite small, the loans accompanying them are sometimes well over the Corporation's limit. At the same time the small size of its paid up capital has meant that the Corporation gets only a small income from its portfolio investment, a consideration which has forced it to keep its running expenses small and has

prevented it from employing sufficient numbers of good staff. Supplementing all of these difficulties has been the discovery that private Arab investors are not accustomed to the idea of insurance, and that quite apart from any residual religious considerations, they have shied away from considering insurance as if they cannot face being reimbursed of the very thought of the non-commercial risks involved in overseas investment.

It is therefore not surprising that as of the beginning of June the IAIGC had signed only five contracts. Two of these were for loans from the Kuwait Foreign Trading Contracting and Investment Company to a spinning and weaving factory and a hotel company, both in Sudan. The other three were for equity investments by Kuwaiti private companies in an aluminium works, a carpet factory and an hotel, all in Egypt. It was expected at the time that four or five further contracts would be tied up during the latter summer and early autumn, all involving Kuwaiti institutions or individuals investing in Egypt or Sudan.

The disappointing performance of the IAIGC to date in no sense detracts from the Corporation's long term potential and importance. Private sector inter-Arab investments of the type which the Corporation hopes to encourage count eventually prove to be as important in helping the development of the deficit states as the much bigger and more conspicuous sums now being given by government agencies as aid loans. In part this is because they help spread the administrative manpower burden away from the hand-picked state institutions of the oil producers, and in part it is because it proves to be successful in any country, their potential snowball effect is enormous.

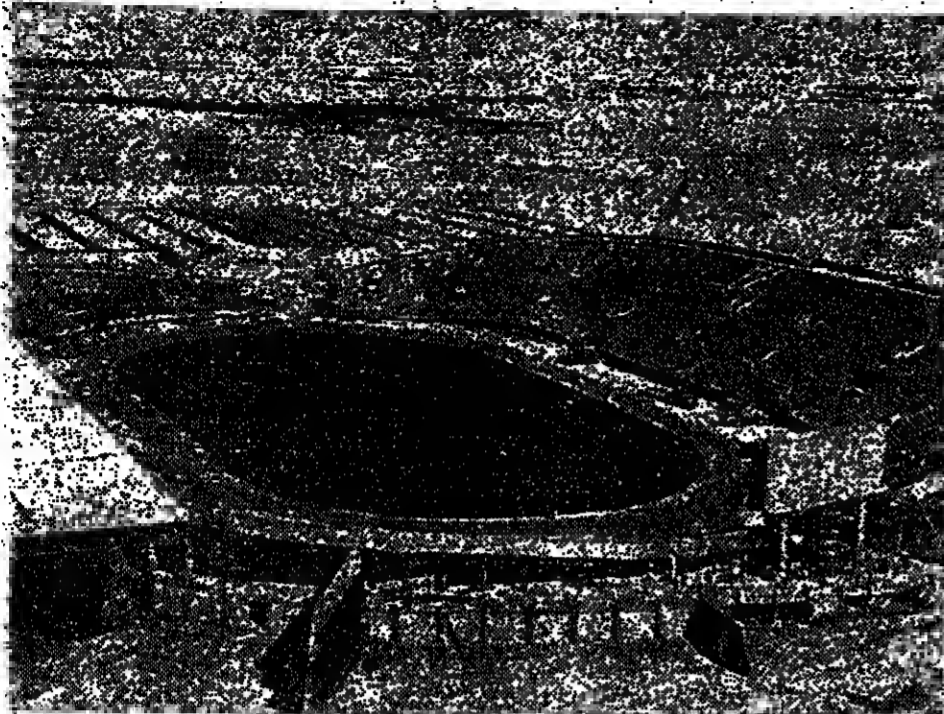
Michael Field







# QATAR



ABOVE: Doha's Khalifa Stadium, scene of the Fourth Gulf Football Tournament, can hold 40,000 spectators—all seated.



BELOW: The berth capacity of Doha's man-made deep water port has been extended from four to eight at a cost of QR 86m.

## Co-operation and aid

Qatar's provisional Constitution unequivocally declares that foreign policy will aim at "strengthening the ties of friendship with all Islamic states and peoples"; and the State's membership of the Arab League has been equally firmly underwritten by HH the Emir's pledge of "full support for the supreme targets at which its charter aims."

It follows that Qatari participation in joint Arab projects and institutions, on and beyond the Gulf, is widespread and dynamic. For instance, Doha—Qatar's capital—has a Regional Training Centre, a prolific source of craft and clerical manpower, that is open to other Gulf nationals. Doha also houses the headquarters of a Food and Agricultural Organisation (FAO) pan-Gulf fisheries survey. Here also Gulf postal and aviation authorities have conferred—Qatar is a member of the Gulf Aviation Council. And last year the capital's vast elliptical Khalifa Stadium staged the 18-day football extravaganza of the Fourth Gulf Tournament (won by Kuwait after a 4-2 play-off with Iraq) which crammed the capital with 20,000 visitors and won Arab World television audiences of up to 10,000,000.

Beyond the Gulf, Qatari participation in pan-Arab co-operation projects, mostly at agreement level, has involved such diverse activities as air/sea rescue, tourism (the State is a member of the Arab Union of Tourism), studies of dry and arid areas, allocation of radio broadcasting frequencies, and control of radio-active isotopes.

The State's pan-Arab affiliations are particularly evident in educational affairs—as long ago as 1964 its delegates helped to draft the constitution of the Arab League Educational, Cultural and Scientific Organisation (ALESCO). More recent associations include founder-membership of the Supreme Council of Higher Education formed by the education ministers of the Arab Gulf states in Mecca in April 1977, the Riyadh-based Gulf Bureau of Education, and the Kuwait-based Gulf Educational Research Centre—all primarily concerned with the formulation and co-ordination of complementary higher education programmes.

A powerful factor in Qatari external policy is membership with Egypt, Saudi Arabia, Kuwait and the United Arab Emirates in the Arab Military Industries Organisation (AMIO), which has the general objective of reducing the dependence of their defence forces on non-Arab sources of supply.

## TRANSPORTATION

Transportation is another important field of co-operation. Qatar is an equal partner with Bahrain, Abu Dhabi and Oman in Gulf Air—which operates international routes (mainly with extended-range TriStars) as well as an Arab World network—also with Iraq, Kuwait, Saudi Arabia and the United Arab Emirates (19.3 per cent each), and Bahrain (3.5 per cent), in the United Arab Shipping Co., launched in Marré this year to run freight services between Gulf ports and Europe, Japan and the United States.

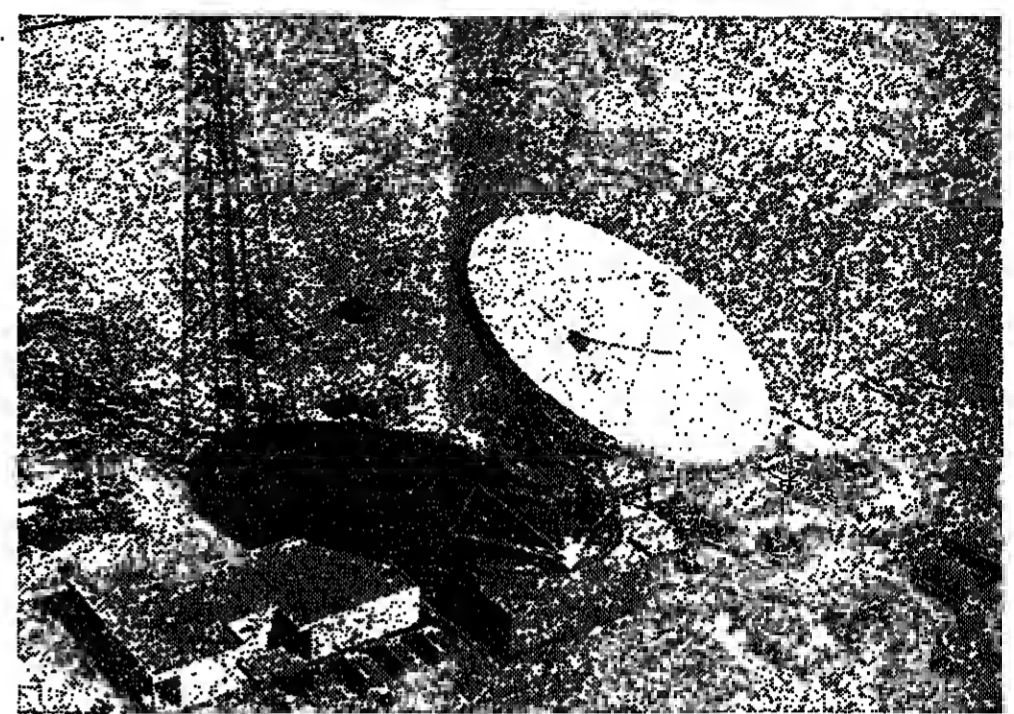
In addition, the State is a member of the Gulf Ports Federation. Qatar has been a member of the Organisation of Arab Petroleum Exporting Countries (OAPEC) since June 1970 and is—through the Qatar General Petroleum Corporation (QGPC)—a shareholder in two major affiliates: Arab Shipbuilding and Repair Yard (16 per cent) and Arab Maritime Petroleum Transport (13.57 per cent).

In recent years the State has concluded agreements with Tunisia (cultural, technical and commercial), Morocco (cultural and technical), Egypt (cultural and health), Saudi Arabia (economic) and Somalia (economic and commercial).

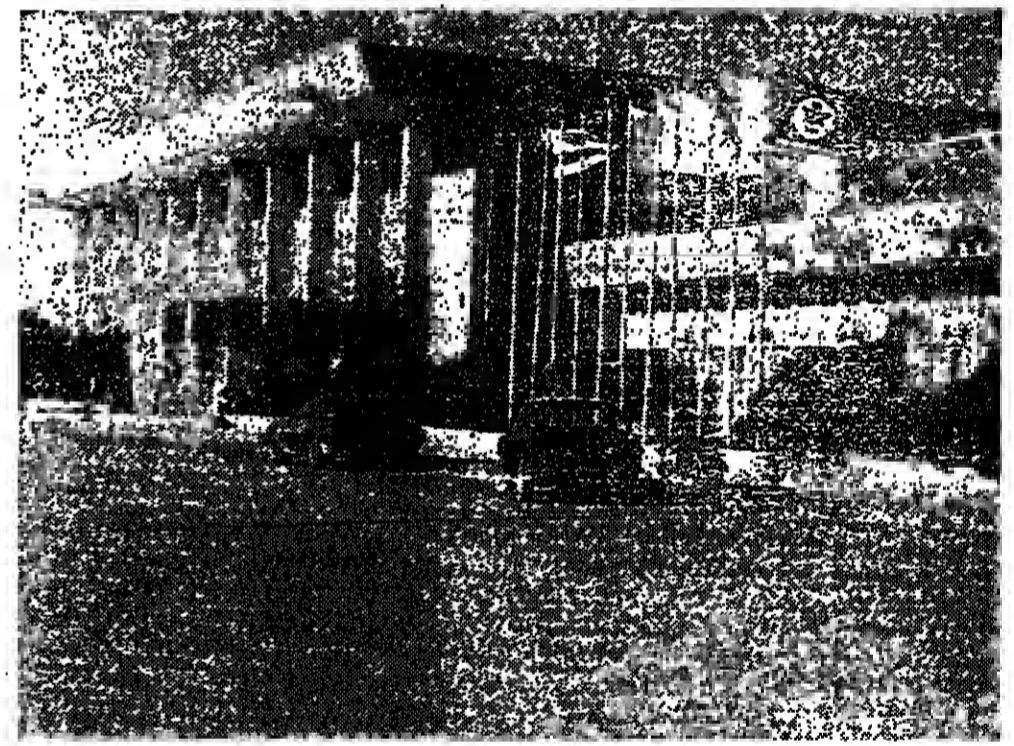
Official Qatari reticence concerning specific aid activities is far more a matter of traditional good manners than of external policy and, in practice, only those subject to international or pan-Arab accountability are disclosed—although in general terms HH the Emir has revealed that Qatari assistance to "developing nations" amounted to 12 per cent of the national income in 1974, 20 per cent in 1975 and 15 per cent last year.

It has also been officially stated that the principal institutions of Qatari participation include the Arab Fund for Economic and Social Development (SUS12m.), the Arab Monetary Fund (Arab Dinars 10m.), the Arab Bank for Economic Development in Africa (SUS60m.), the Arab Fund for Technical Aid to Arab and African Countries (SUS50,000), the Arab Loan Fund for Africa (SUS10m.), the Gulf Organisation for Development in Egypt (SUS200m.), the Islamic Development Bank (SUS12m.) and the Arab Institute for Investment in Agricultural Development (Kuwaiti Dinars 7.5m.).

The first four institutions named above operate under Arab League auspices. In addition, Qatar is associated with no fewer than 20 others similarly based. These include the Arab Academy for Maritime Transport, the Arab Economic Unity Council, the Arab Labour Office, the Arab Labour Organisation, the Arab Narcotics Bureau, and the Arab States Civil Aviation Council.



ABOVE: The State's earth station, beamed on the Indian Ocean satellite, now provides a London to Doha direct telephone dialling facility.



BELOW: Doha International Airport is being expanded as preliminary work for its replacement proceeds under a joint allocation of QR 46m.

## Development

The purpose of this report is to update the information provided in this newspaper on March 9 this year; thus titles are retained in the same running order and the locally additive.

On 31 this year HH the administrative control of on-shore and off-shore crude recovery and exploration following the State's acquisition, by agreement, of residual equities held by the shareholders of the Qatar Petroleum Co. Ltd. and the Shell Co. of Qatar Ltd. It is a wholly-owned subsidiary of the Qatar General Petroleum Corporation (QGPC), established two years earlier with overall responsibility for the entire range of the State's oil and natural gas interests.

Exports of on-shore and off-shore crude totalled 23,140m. long tons in 1976, compared with 20,356m. LT in 1975 and 24,247m. LT in 1974. Shipments from the Umm Said (on-shore) and Bahal Island (off-shore) terminals totalled 11,000m. LT and 12,140m. LT respectively.

**OLEUM:** The Qatar Producing Authority was formed in September to provide technical and

In December last year the State hosted the forty-eighth ministerial conference of the Organisation of Petroleum Exporting Countries (OPEC) and its Minister of Finance and Petroleum, HE Sheikh Abdulaziz bin Khalifa al-Thani, acted as chairman upon his election as OPEC's President for 1977.

**GAS:** Work continues on the Qatar Gas Co. (QGC) plant (NGL-2) for the extraction and processing of associated gas from the Id' al-Shari off-shore oil field. Completion is now scheduled for mid-1978 with a designed first phase daily output of 1,100 tons of propane, 900 tons of butane and 900 tons of natural benzene. Ultimate expenditure is estimated at QR1,000m.

Plans for a second NGL-2 production line, to process on-shore associated gas, are in hand.

Test drilling of the high-potential seabed unassociated gasfield in the north-west section of the former Sbeit Qatar concession area continues—as do feasibility studies concerning extraction, processing and marketing as methane and ethane. A decision on an exploitation project, based on expenditure equivalent to SUS2,000m., is probable next year.

**INDUSTRY:** It was officially announced in July this year that the Qatar Steel Co. (QASC) plant would open in February 1978 and that the Qatar Petrochemicals Co. (QAPC) complex would also go on stream next year; the State's holdings are 70 per cent and 80 per cent respectively. QASC's principal product will be round steel bar. QAPC will extract ethylene from locally processed associated gas to produce polyethylene.

Expansion operations at the Qatar Fertiliser Co. (QAFCO) and Qatar National Cement Co. installations are now well advanced. QAFCO's objective is to double output of high nitrogen content urea and hydrous liquid ammonia at daily rates of 1,800 and 2,000 tons respectively at a cost of QR1,000m. Qatar National Cement's QR300m. programme includes installation of a fourth kiln.



THE EMIR OF QATAR  
HH Sheikh Khalifa bin Hamad al-Thani.

The Industrial Development Technical Centre (IDTC), the State's co-ordination and advisory arm in diversification affairs, is considering the results of feasibility studies covering a wide variety of light industrial activities, notably production of plastic products and building materials.

**EDUCATION:** In June this year the first group of 117 students, 79 of them women, graduated with BA and BSc degrees from Doha's Faculty of Education, established (in the words of HH the Emir) to serve as "the first step towards the envisaged Qatar University which, by God's will, we shall make available to all citizens of the Gulf region." Registrations for the 1977-78 academic year number 767 (516 women) and

the National Budget allocation has been increased from QR3,383m. to QR5,117m. First phase work on the university itself has commenced; completion is programmed over six years at an estimated cost of QR740m.

The overall student population now totals 32,400, with girls accounting for 17.3 per cent of the primary, preparatory and secondary stages. Fifty-three of 1,853 higher education students are attending overseas universities.

**PUBLIC HEALTH:** Construction of Doha's new 600-bed general acute hospital, with main accommodation comprising two six-storey ward blocks, is nearing completion. An integrated system of six purpose-built health centres is

being introduced with the aim of de-centralising the State's completely free existing services by encouraging reliance on preventive support units.

**SOCIAL SERVICES:** The 1977 National Budget allocated QR80m. for the construction of 600 additional "popular" housing units for low-income families and another QR200m. for interest-free building loans.

**POWER/WATER:** In April this year HH the Emir opened the first phase installations of the gas-fuelled power/distillation complex at Ras Abu Aboud, 15km south of Doha. Current capacity is 100 MW of electricity and 10m. gallons of water daily. Second phase work, now proceeding, will add 200 MW and 20m. gd. Completion remains scheduled for 1979 with an ultimate capacity of 500 MW and 50m. gd.

**AGRICULTURE:** The Government is taking steps to check depletion of natural underground sources of irrigation water, as revealed by a two-year hydro-agricultural survey, and thus facilitate additional agricultural development. It has ruled that well supply to industrial and domestic consumers should cease as soon as possible (as distinct from sea water distillation distribution) and that schemes to recharge the underground aquifers with water produced by distillation should be subjected to feasibility studies.

**FINANCE:** The March 1977 report in this newspaper mentioned that the National Budget for that year provided QR300m. for major development projects, representing an increase of QR1,918m. (44 per cent) over relative expenditure in 1976.

The Qatar National Bank SAQ, whose wholly-owned Qatar ownership reflects local commercial and industrial conditions, has since reported a 1976 net profit increase by 15 per cent to QR30,486m. and payment of a dividend of 20 per cent (QR5,600m.) as against 15 per cent (QR4,200m.) in 1975. The bank's statutory and financial reserves rose in the 12 months by 41 per cent from QR5,725m. to QR19,623m. Its total assets by 69 per cent from QR1,101m. QR1,874m., and the value of its equity by 31 per cent from

QR112,818m. to QR147,704m.

**COMMERCE:** The value of the State's 1976 imports rose by 106 per cent in comparison with 1975—from QR1,610m. to QR3,300m. Japan and Britain shared 44.88 per cent of the overall market—with sales worth QR933,697m. (28.29 per cent) and QR547,586m. (16.89 per cent) respectively. Other major non-Arab suppliers were the United States (QR257,507m.; 7.82 per cent) and West Germany (QR252,100m.; 7.65 per cent).

The State's exports of ammonia and urea fertiliser products totalled QR122.2m. in value last year.

**BROADCASTING:** Work has begun at al-Khaisah, near Doha, on a radio transmitting complex to house a total of eight broadcasting equipments: two 50 kW medium frequency, one 100 kW mf, two 1 kW mf, one 100 kW high frequency, one 250 kW hf, and one 10 kW mf.

The northern (al-Arisha) 750 kW mf transmitting station, intended to cover the whole of the Middle East and parts of North Africa and Europe, is expected to become operational later this year.

**AVIATION:** The 1977 National Budget provided QR46m. for the expansion of the existing Doha International Airport and preliminary activities associated with

the Government's continued interest in its replacement. Scheduled aircraft movements through Doha totalled 7,540 last year compared with 6,901 in 1975—an increase of 9 per cent.

Passenger arrivals and departures, rose by 27 per cent over the same period.

**SHIPPING:** A QR86m. project to extend the berth capacity of Doha's man-made deep water port from four to eight was completed in June this year.

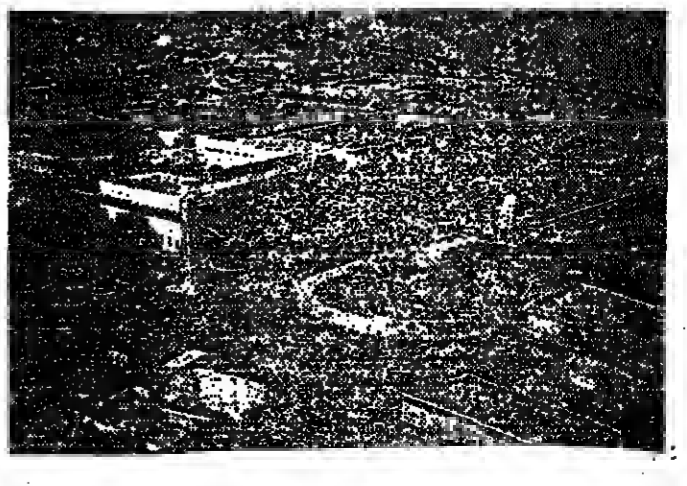
Nearly 600 vessels (including 210 from Britain and Europe) off-loaded 1,288m. freight tons of general cargo last year—plus over 140,000 head of livestock.

**TELECOMMUNICATIONS:** The capacity of Doha's fully-automatic telex exchange is to be increased from 720 lines (accepting 75,000 outgoing minutes monthly) to 960 lines.

Direct telephone dialling between London and Doha was introduced in June (international code: 010 974) and other external telephone destinations now available through the State's earth satellite station include (in addition to Arab countries) France, India, Iran, Italy and Pakistan. External telephone time exceeds 500,000 minutes daily.

The 1977 National Budget allocated QR1.6m. for the expansion of the domestic telephone system to 29,400 lines.

Doha Palace, on the capital's waterfront, houses the Office of HH the Emir.









ARAB COOPERATION AND DEVELOPMENT VII

مركز من الأجر

# Differing trade requirements

Trade has always been a sensitive issue when compared with the rest of the world. It is only recently that the Arab League has made comprehensive arrangements to concentrate the activities of more than 100 member states. In the past, the impact of nationalism into political frontiers. These, in turn, were protected by tariff barriers, and political rivalries encouraged. For example, many countries began to concentrate wastefully on their own programmes of developing import-substitution instead of co-ordinating the production of such goods. Furthermore the Arab countries' economic requirements differ enormously. Some possess mineral or agricultural resources, others little of either. In addition some have pressing population problems while others suffer from manpower shortages. Above all, until recently, the inadequate level of regional transport and communications hampered the development of internal and regional markets. When the crucial point is added that all Arab countries have been in the process of developing their economies, it is inevitable that regional trade should have been of considerably less importance than trade with the world outside.

Intentions were impeccable. The newly-established AECU proclaimed its belief in five basic freedoms, namely to travel and transfer capital; the exchange of goods; to have work, residence and economic activity; in the use of harbours and airports; and in the rights of ownership and inheritance. Among the concrete aims of the signatories to the AECU treaty were the establishment of a single customs entity, uniform policies and legislation covering exports and imports, and transport and transit regulations, and the conclusion of joint trade and payment agreements with non-Arab countries.

Article 2 announced the establishment of the ACM, with its activities to start from January 1, 1965. However, only the UAR, Iraq, Syria and Jordan signed the ACM treaty in August, 1964. Kuwait's National Assembly failed to ratify its signature. The original AECU agreement provided for a reduction of tariffs on agricultural produce by 20 per cent. a year, and on industrial products by 10 per cent. annually.

The ACM now has seven members. Sudan and Libya joined last June, and south Yemen in August. At the last session of the AECU, Dr. Abdol-Aal al-Sakban, the Secretary-General, said there were plans for the remaining members of the Arab League to join next year.

Barriers Inevitably, the ACM has fallen far short of its hopes of breaking down tariff barriers and opening the way to a free market. In theory, free trade exists among the original four members (the newcomers have asked for an initial 50 per cent. reduction on import tariffs and some restrictions to protect infant industries), but Dr. Sakban admitted in an interview that there are both import and monetary restrictions by members acting protectively. Furthermore, the ACM lacks the jurisdiction to prevent members States from passing legislation which infringes market rules.

Last April, the AECU presented a paper at a joint seminar with FAO in Cairo entitled "Economic Integration Organs in the Arab World and the Role of the Council of the Islamic Arab Economic Unity." In it, the AECU acknowledges that the ACM agreement "had been so ambitious that it ignored the real economic status of member countries," and one by-product was that member States with exportable surpluses exported these outside the ACM "on the pretext that the proceeds... are in foreign exchange." It added: "Although the quantitative and administrative restrictions had been abolished on trade among Market countries, still there is a fact that cannot be overlooked, namely, the trade sector in three of the member countries has become a part of the public sector. This necessitated adopting restrictive policies as far as the

volume, structure and tendencies of trade are concerned. The difference in cost structures has pushed some countries to impose administrative restrictions with a view to protecting their industries. The different Customs duties and taxes imposed on imported raw materials and intermediary goods had been one of the factors among Market countries. This state in its turn had led Market countries to adopt protective measures contrary to Market resolutions."

It adds, that countries which had not yet signed the Market resolution had been motivated by two reasons: fear of decreasing customs revenues and of harm which could be done to hudding industries. Nevertheless, during the ten years of ACM's existence the volume of trade has risen by 294 per cent.

A reasonably precise assessment can be made of the volume of inter-Arab trade as a whole (and amongst ACM members) thanks to a statistical bulletin put out by the AECU comparing trade performance of all the Arab countries in 1970 and 1973. (The value of trade is harder to pinpoint because all figures are based on converting the trade returns of individual Arab countries into Arab dinars, whose exchange rate fluctuated over the years both against individual currencies and the U.S. dollar.)

In general terms, 6.3 per cent. of Arab exports went in both 1970 and 1973 to other Arab states and the ACM's share fell during this period from 2.3 per cent. to 2 per cent. (The ACM statistics deal only with Egypt, Iraq, Syria and Jordan.) On imports, trade within the Arab world fell from 10.2 per cent. in 1970 to 6.8 per cent. in 1973. The share of the ACM fell over the same period from 3.5 to 2.3 per cent. Trade within the Arab export market has been most active in the sectors dealing with leather manufactures, textile yarns, fabrics, and made up articles.

In 1973, 43 per cent. of exports went to the Arab world ports is smaller. In the sector of hides and skins, textile fibres, ACM, compared with 32.3 per cent. in 1970 (8.2 per cent. to (excluding petroleum and its products) 15.7 per cent. went to agricultural products. Here, the Arab world (of which the ACM countries took 6.8 per cent. in 1970 (a mere 3 per cent. in 1973, while in 1970 a mere 3 per cent. for the ACM countries). Where had gone to the Arab world, of which the ACM had taken 13.8 per cent. in 1970, respectively in 1973, 26.7 per cent. Thirdly, in the agricultural sector, the Arab world took 11.6 per cent. in 1973 compared with 20.3 per cent. in 1970 (5.6 per cent. to ACM). The overall picture is reflected by the 1970 and 1973 figures is that Arab world trade is on a low level and confined to unsophisticated industrial products and agricultural products.

Imports The areas in which inter-Arab trade is mainly involved in im-

ports went to the Arab world ports is smaller. In the sector of hides and skins, textile fibres, ACM, compared with 32.3 per cent. in 1970 (8.2 per cent. to (excluding petroleum and its products) 15.7 per cent. went to agricultural products. Here, the Arab world (of which the ACM countries took 6.8 per cent. in 1970 (a mere 3 per cent. in 1973, while in 1970 a mere 3 per cent. for the ACM countries). Where had gone to the Arab world, of which the ACM had taken 13.8 per cent. in 1970, respectively in 1973, 26.7 per cent. Thirdly, in the agricultural sector, the Arab world took 11.6 per cent. in 1973 compared with 20.3 per cent. in 1970 (5.6 per cent. to ACM). The overall picture is reflected by the 1970 and 1973 figures is that Arab world trade is on a low level and confined to unsophisticated industrial products and agricultural products.



Dubai's Creek is still a significant centre for transhipment to traditional coastal craft, and complements the State's impressive modern port facilities.

ports went to the Arab world ports is smaller. In the sector of hides and skins, textile fibres, ACM, compared with 32.3 per cent. in 1970 (8.2 per cent. to (excluding petroleum and its products) 15.7 per cent. went to agricultural products. Here, the Arab world (of which the ACM countries took 6.8 per cent. in 1970 (a mere 3 per cent. in 1973, while in 1970 a mere 3 per cent. for the ACM countries). Where had gone to the Arab world, of which the ACM had taken 13.8 per cent. in 1970, respectively in 1973, 26.7 per cent. Thirdly, in the agricultural sector, the Arab world took 11.6 per cent. in 1973 compared with 20.3 per cent. in 1970 (5.6 per cent. to ACM). The overall picture is reflected by the 1970 and 1973 figures is that Arab world trade is on a low level and confined to unsophisticated industrial products and agricultural products.

ports went to the Arab world ports is smaller. In the sector of hides and skins, textile fibres, ACM, compared with 32.3 per cent. in 1970 (8.2 per cent. to (excluding petroleum and its products) 15.7 per cent. went to agricultural products. Here, the Arab world (of which the ACM countries took 6.8 per cent. in 1970 (a mere 3 per cent. in 1973, while in 1970 a mere 3 per cent. for the ACM countries). Where had gone to the Arab world, of which the ACM had taken 13.8 per cent. in 1970, respectively in 1973, 26.7 per cent. Thirdly, in the agricultural sector, the Arab world took 11.6 per cent. in 1973 compared with 20.3 per cent. in 1970 (5.6 per cent. to ACM). The overall picture is reflected by the 1970 and 1973 figures is that Arab world trade is on a low level and confined to unsophisticated industrial products and agricultural products.

However, at an ACM meeting in Cairo last April, an optimistic view was put forward by the four members who maintained that through proper trade regulations they could increase their trade enough to become self-sufficient, at the first stage, in agricultural products and then, at a second stage, in such industrial goods as cement, fertilisers, paper and industrial products. But the AECU as a whole takes a broader and more sober view. It argues that inter-Arab trade cannot expand on its own but relies on the increase in inter-governmental planning to prevent duplication of projects and programmes. The Arab League and the AECU have also made a major attack on this problem by encouraging over the years the establishment and operations of specialised economic agencies dealing with a wide range of economic activities. The AECU

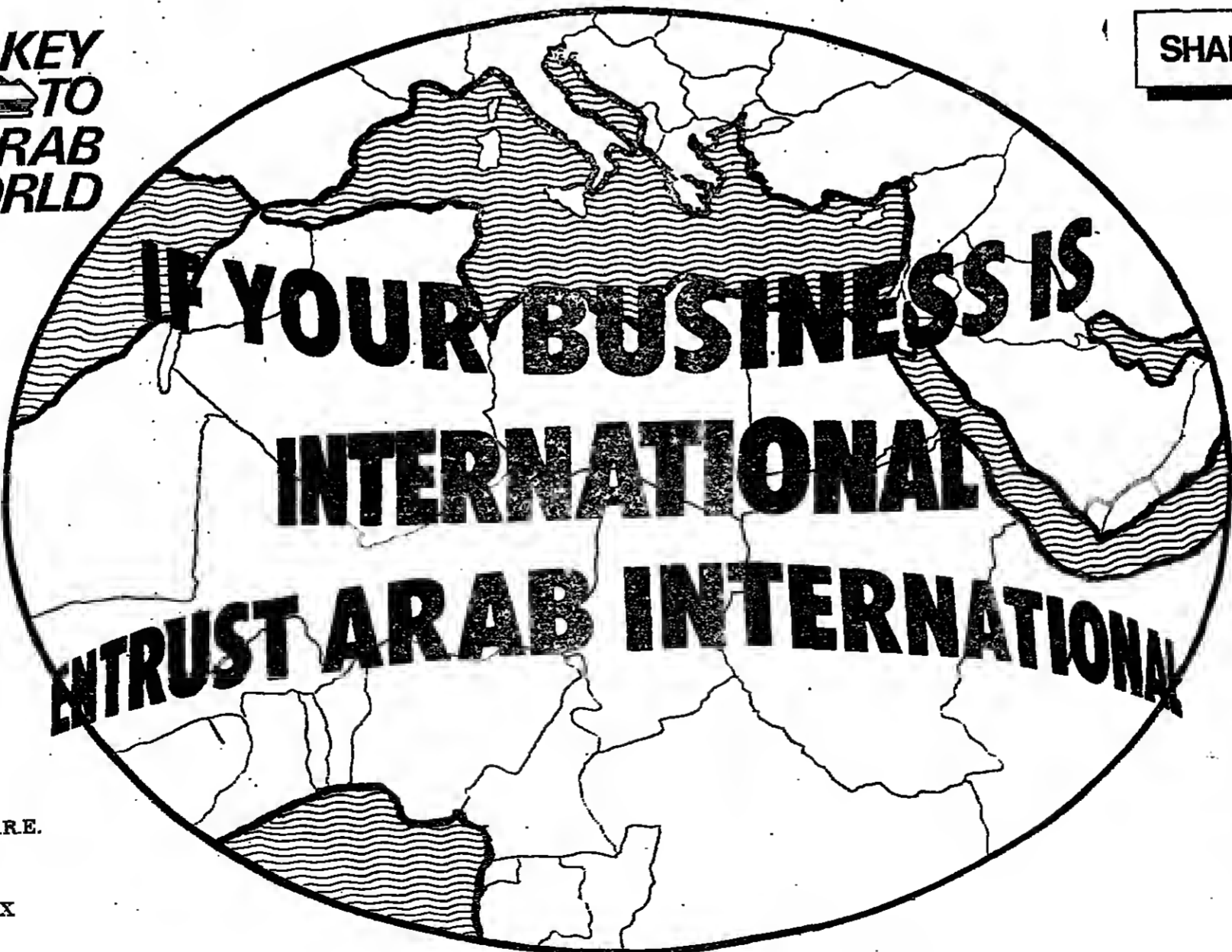
has under its aegis for example Arab companies dealing with mining, animal wealth, pharmaceuticals, food production, industrial investment. Others are being planned for tourism, trade and transport. The AECU has published a list of no less than 127 pan-Arab and bilateral organisations (of which two-thirds were set up in 1973 and after) including banks and finance groups, investment companies, production, and service companies and industrial and service federations. Out of this may eventually emerge a sense of economic community which could be controlled and co-ordinated by the Arab League. But as long as this remains a region of essentially developing countries with long term economic ties to the West, the chances of a marked increase in inter-Arab trade remains distant.

A. McD.

## ARAB INTERNATIONAL BANK

HEAD OFFICE: 35 ABDEL KHALEK SARWAT ST. CAIRO, A.R.E.  
PORT SAID BRANCH: EL GOMHOREYA AND EL MAAMOUN ST.

YOUR KEY TO THE ARAB WORLD



SHARE HOLDERS:

- ARAB REPUBLIC OF EGYPT
- LIBYAN ARAB PEOPLE SOCIALIST GAMAHIREYA
- UNITED ARAB EMIRATES
- SULTANATE OF OMAN
- STATE OF QATAR
- PRIVATE ARAB PARTICIPATIONS

CHAIRMAN: DR. AHMED NAZMY ABDEL HAMID  
DEPUTY CHAIRMEN:  
MR. ABDALLA AMMAR SAUDI  
DR. HASSAN ABBAS ZAKI  
MR. YEHIA OMAR  
MANAGING DIRECTORS:  
DR. MOSTAFA KHALIL  
MR. HADI MOHAMED GITELI  
MR. HIKMAT SAYED RIZK  
MR. SADDIK HIJJAJI

ES: ARABINBANK, CAIRO, A.R.E.  
YES: 2079 AIB 2273 AIB  
316 AIBEX 317 AIBEX  
2341 AIBEX 2098 AIBEX  
PHONES: 918794/916120

BALANCE SHEET AS AT 30th JUNE, 1977

ASSETS		LIABILITIES	
	U.S. \$ Million		U.S. \$ Million
CASH AND BANKS	527.5	PAID UP CAPITAL	100.0
INVESTMENTS	13.4	RESERVES	50.0
LOANS AND ADVANCES	337.5	DEPOSITS	693.1
OTHER ACCOUNTS	26.6	OTHER ACCOUNTS	39.7
FIXED ASSETS	2.1	PROFIT	24.3
	<u>907.1</u>		<u>907.1</u>
CONTRA ACCOUNTS		CONTRA ACCOUNTS	
LIABILITIES ON CREDITS, GUARANTEES, ETC.	347.4	LIABILITIES ON CREDITS, GUARANTEES, ETC.	347.4

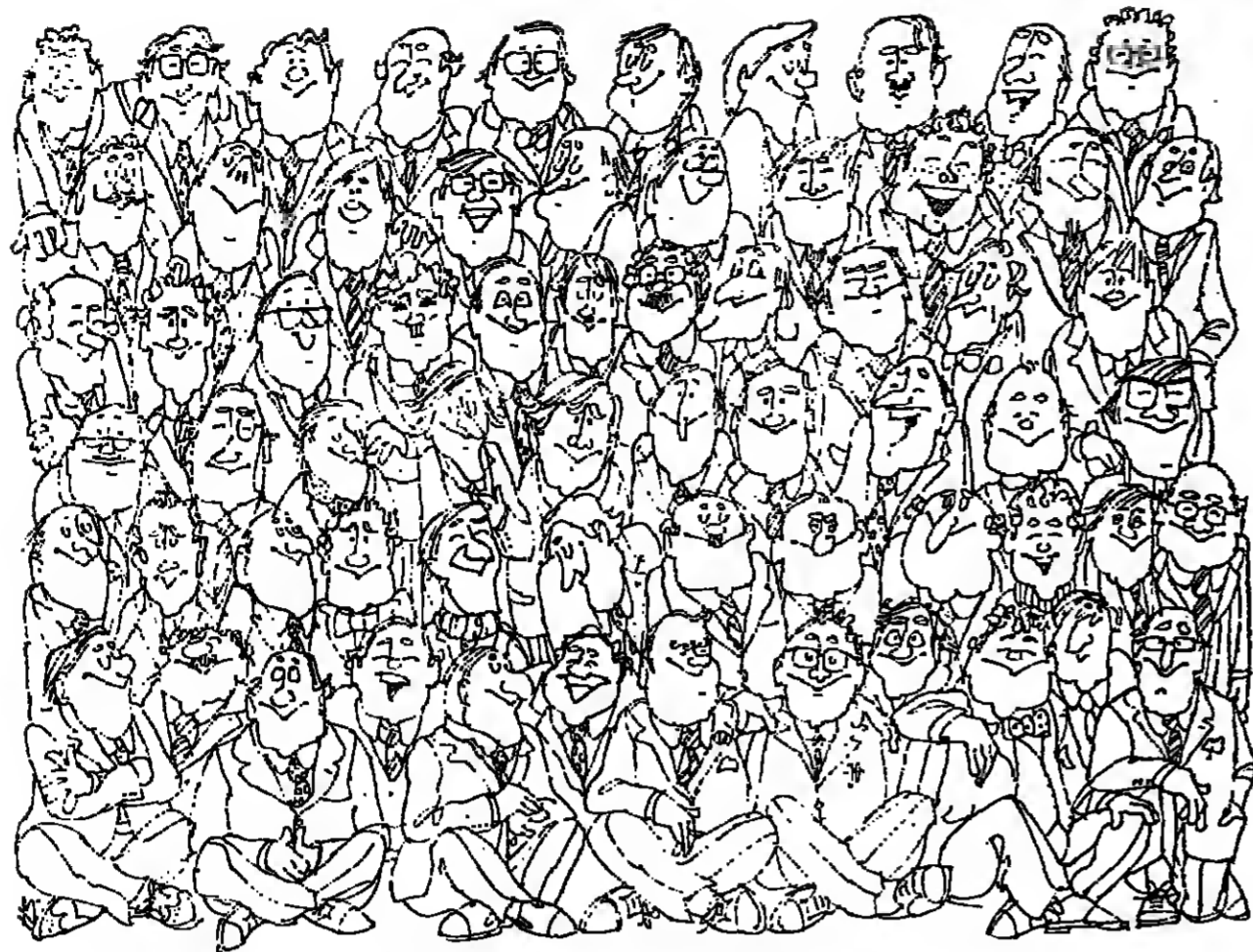
We are LOW





ARAB COOPERATION AND DEVELOPMENT VIII

Euro-Arab talks need a boost



An offer you can't refuse.

Overall management or consultation on individual problems for the safe and efficient marine transportation of petroleum and its related products, 365 days a year, 24 hours a day. That's Tanker Fleet Services. And that's their offer. An offer you really can't afford to refuse.

TFS now manage some 60 ships ranging in size from 300,000 dwt crude oil tankers down to 18,000 dwt multi-grade product carriers including LNG carriers and bitumen ships.

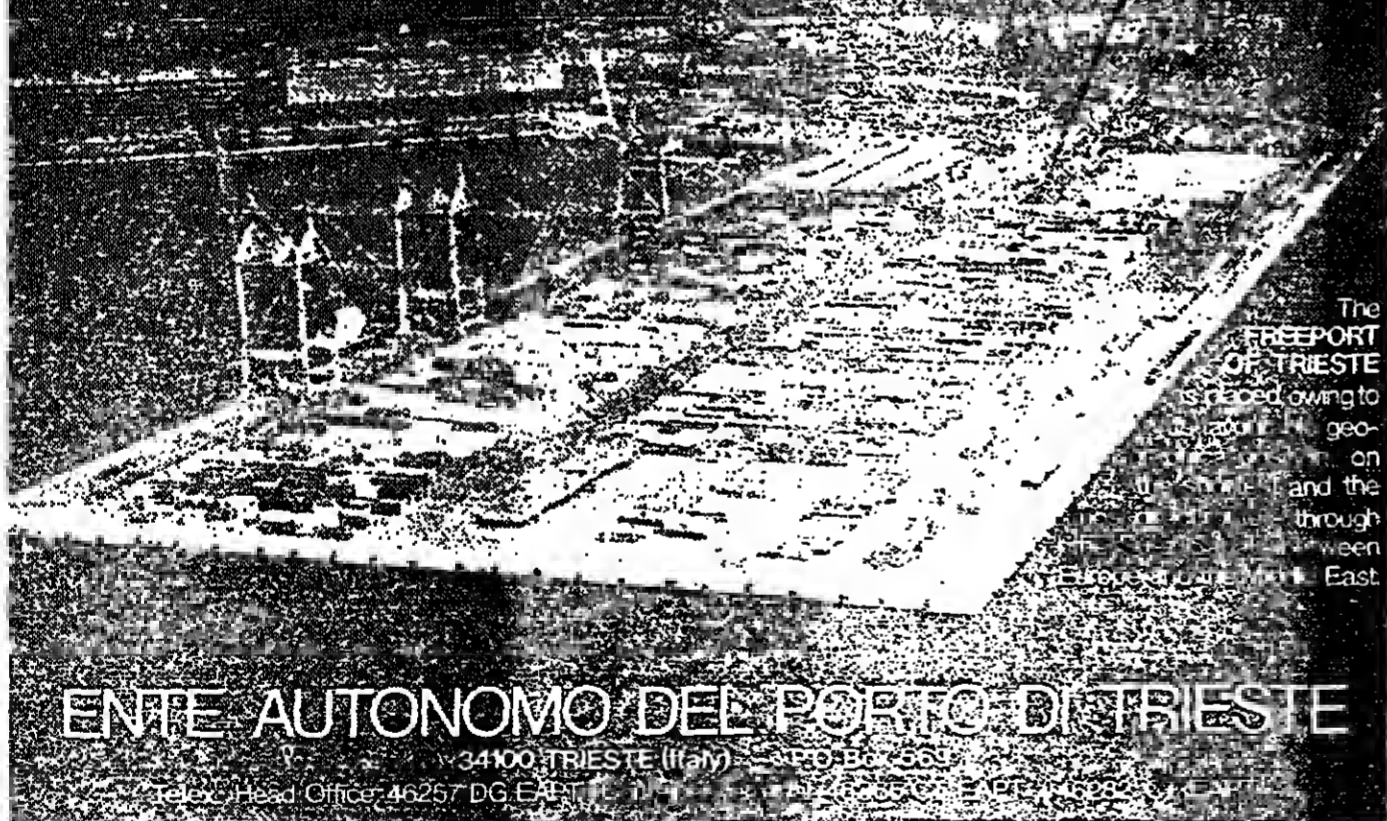


Tanker Fleet Services, STF/3 (FT/26/9), Shell Centre, London SE1 7PQ, Telex London 919651.

Operations Engineering Personnel Purchasing Finance

A Division of Shell Tankers Ltd, a company of the Royal Dutch/Shell Group.

... THE TRIESTE TERMINAL HAS SPACE FOR YOUR CONTAINERS TOO

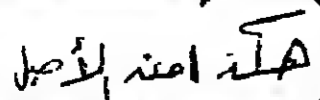


The FREEPORT OF TRIESTE is being developed through the cooperation of the East.

European Banking Company Limited

40 Basinghall Street London EC2V 5EB Telephone: 01-638 3654 Telex: 881100/1

Foreign Exchange Eurocurrency Deposits and Loans Project Financing Capital Issues Investment Services



Member Banks

Amsterdam-Rotterdam Bank NV Banca Commerciale Italiana SpA Creditanstalt-Bankverein Deutsche Bank AG Midland Bank Limited Société Générale de Banque SA Société Générale France

AT THE end of next month representatives of Governments of the Nine, the members of the Arab League and the European Commission are due to gather in Brussels for the third "General Committee" of the Euro-Arab dialogue. The three-day ambassadorial meeting is supposed to decide on the first concrete projects for co-operation, whose adoption will mark the opening of the dialogue's "operational" phase.

Progress

Progress to date has been disappointing, all the more so in the light of the expectations—even mild excitement—which attended the setting up of the dialogue a little over three years ago. In the tumultuous aftermath of the OPEC embargo and the sharp rise in world oil prices, it appeared to some to open up a path through largely uncharted territory which could lead to the forging of a novel kind of relationship between Europe and the Arab world.

Demands

One of the major Arab demands remains a global preferential trade agreement with the EEC. This, however, is unacceptable to the Community, which is firmly wedded to its policy of bilateral trade arrangements with individual states. It has already concluded such accords with about half the Arab League countries as part of its Mediterranean policy and there is little European interest in extending similar treatment to the others, whose exports to the EEC anyway consist largely of crude oil.

Tensions decline in Afro-Arab relations

THE ARAB world has been through some traumatic moments in its relations with the African countries in the past five years. Arab diplomats persuaded black African states to align themselves with the Arab countries against Israel between 1972 and 1973, but it was not long before the African states were expressing bitter disappointment at what they saw as the poor economic and political payoff.

The Arab and African states have a great deal in common. They are all third world developing countries and the African and Arab worlds overlap as President Anwar Sadat of Egypt pointed out at the Cairo conference 80% of the 130m Arabs live in Africa, and eight (now nine including Djibouti) members of the Arab League are also members of the Organisation of African Unity.

Several factors played a part in the decision, among them the growing African belief that the position of Israel was analogous to the position of the white states in southern Africa and the desire to see the Arab states adding to the isolation of southern Africa in return for their agreeing to isolate Israel. Some writers have argued that the Israeli crossing of the Suez Canal on October 16 was a psychological breaking point...

BOY on

Capital

Factors

Dev



# ARAB COOPERATION AND DEVELOPMENT IX

## Boycott carries on regardless

A year has seen the challenge yet to the Arab world who constitute an intelligence gathering system and can also fulfil an intermediary function in relation to companies trying to obtain removal from the embargo. The regional commissioners meet twice yearly under Mr. Mahgoub to discuss and decide general policy as well as judging the fate of concerns or people whose names are placed on the black list and those seeking removal from it.

### Cooperation

Exploration for minerals and becoming the agents abroad for an Israeli company or being a large importer of Israeli goods can invoke the embargo. Shipping goods to Israel or transporting Israeli products can expose foreign companies to blacklisting. Boycott regulations also specify the provision of loans to Israel, the distribution or promotion of Government bonds, the making of films promoting Israel or projecting a bad Arab image, and donation of money to Zionist causes. Companies with directors belonging to Israeli Chambers of Commerce in third countries can also be victimised.

which handles Israeli bonds in the U.S., has never been boycotted and for many years has been one of the financial institutions most favoured by the Saudi Monetary Agency. In the U.S. much of the pressure for tougher legislation was built up on account of discriminatory practices against Jews. Although the General Principles of the Boycott of Israel do not include any religious or ethnic criteria for blacklisting, requests for information about the religion of companies' personnel have not been infrequent in the past, especially from Saudi Arabia. However, publicity and protest in the U.S., as well as diplomatic persuasion, have had their effect. Out of nearly 170,000 boycott-related requests reported by U.S. companies to the Commerce Department in the 12 months up to October 1, 1976, only 15 were classified as discriminatory on the basis of race, religion or national origin. Moreover, Saudi Arabia has now ceased to inquire about the religious affiliation of visa applicants.

### Conference

Barclays Bank was removed from the black list at the 41st conference in Alexandria in May of this year after what seemed an unprecedentedly short time. Mr. Mahgoub explained that the ban had been lifted because the group was found to have made available finance to the Arab world which easily outweighed its Israeli activity. Also cleared was Humphreys and Glasgow, the

U.K. process-plant manufacturer which had been boycotted in 1968 on account of a contract to build an ammonia plant in Israel. It is a company which could well be of use to development plans of the Arab oil producers—all the more so if the U.S. legislation made it impossible to do business with the Arabs.

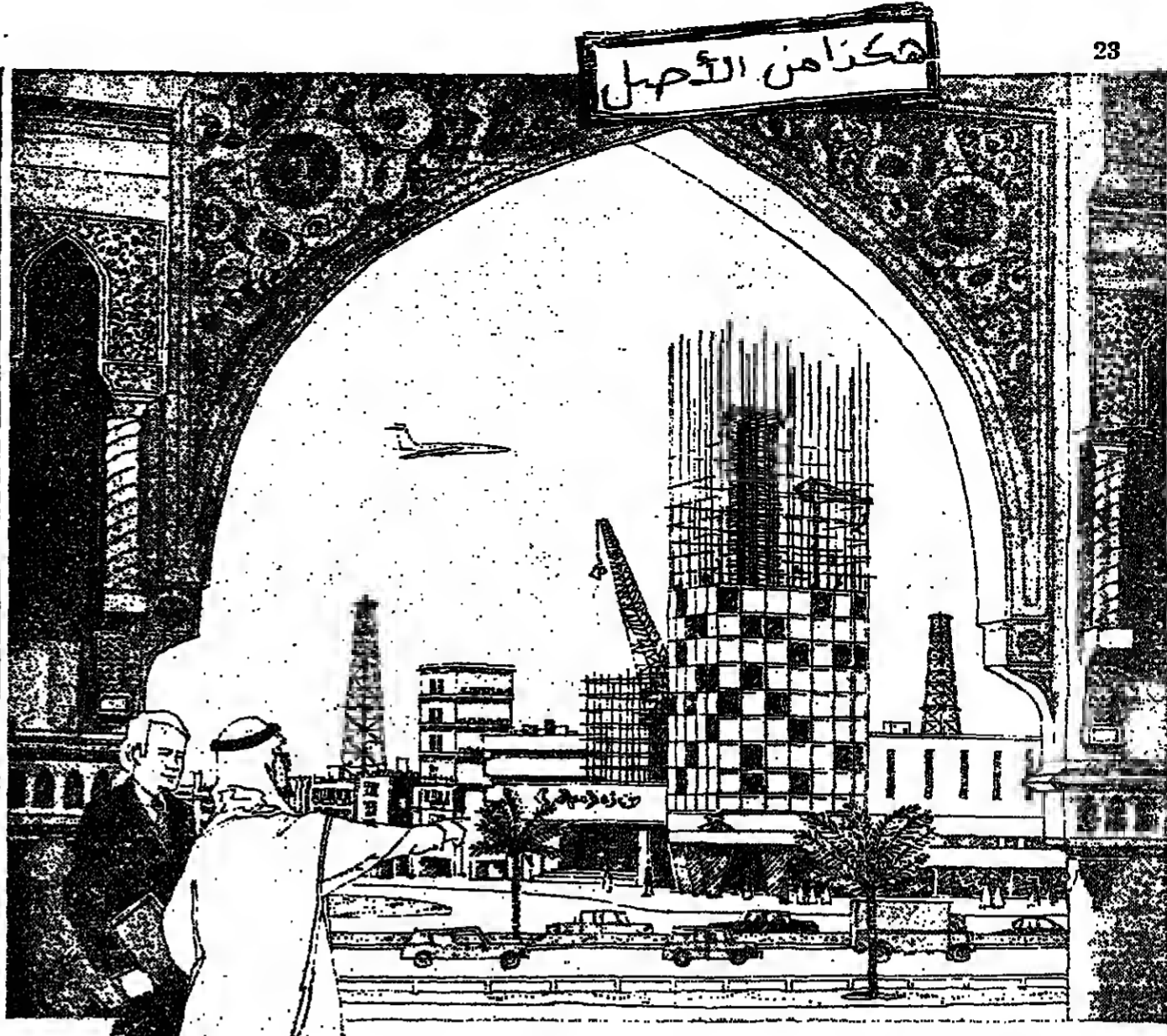
### Relations

rd institution set up at the Arab Fund for Assistance to Africa, authorised capital of \$100m. as slow to gain substance and appears to have been totally dormant. In the preparatory sessions of the Afro-Arab summit in Cairo in March this year, initially, Tanzania proposed the creation of a fund worth \$2bn. to be at the disposal of the African states for the next five years. But the Arab states, despite raising the capital of ABEDA to \$500m., said they could not offer more than \$500m. over the next five years, taking into account their existing bilateral obligations, already estimated at several hundred million dollars.

U.S. process-plant manufacturer which had been boycotted in 1968 on account of a contract to build an ammonia plant in Israel. It is a company which could well be of use to development plans of the Arab oil producers—all the more so if the U.S. legislation made it impossible to do business with the Arabs.

### Development

But when the Summit itself opened Prince Saud al-Faisal, the Saudi Foreign Minister, announced \$1bn. for "economic and social development" in Africa. Of this \$120m. was to be added to the capital of ABEDA, \$10m. would go to the African Development Bank (founded in 1964 and based in Abidjan); \$16m. for feasibility studies; and \$2m. for the OAU Liberation Committee. Kuwait next day followed suit, offering \$200m. in soft loans, \$20m. to ABEDA, \$10m. to ADB and \$10m. for feasibility studies. The UAE said it would give the Abu Dhabi Fund \$100m. for African projects, and give \$5m. to ABEDA, the ADB \$10m., and \$5m. to the African Development Bank. The ADB \$10m. is for feasibility studies \$5m. and liberation movements \$2m. Qatar promised donations, by project aid funds, both on



## The Riyadh Bank. Your ideal introduction to Saudi Arabia's growth economy.

The importance of Saudi Arabia in today's economic world is obvious to any informed individual. The problem for many Western financial people is how to make direct contact with this significant growth area. The Riyadh Bank could provide the ideal introduction.



**Balance Sheet as at 29.6.1396 (27.6.1976)**

Capital and Reserves	258 millions SR.
Deposits	2,838 millions SR.
<b>Total Assets</b>	<b>8,439 millions SR.</b>



The Riyadh Bank is one of Saudi Arabia's leading banks. And like the economy of Saudi Arabia itself, it is growing fast. Today it numbers thirty-four branches throughout the oil-rich Kingdom. Ultra-modern new bank buildings are rising at Jeddah and Riyadh; and in human terms, the bank is building on both the quantity and quality of its personnel. The Riyadh Bank's balance sheet fully reflects Saudi Arabia's rapid economic progress.

### The Riyadh Bank Ltd.

Head Office  
P.O. Box 1047 Jeddah Saudi Arabia.  
Telephone 32416, 32417, 32418  
Cables RIYADBANK Telex 40006 RIYADEX SJ

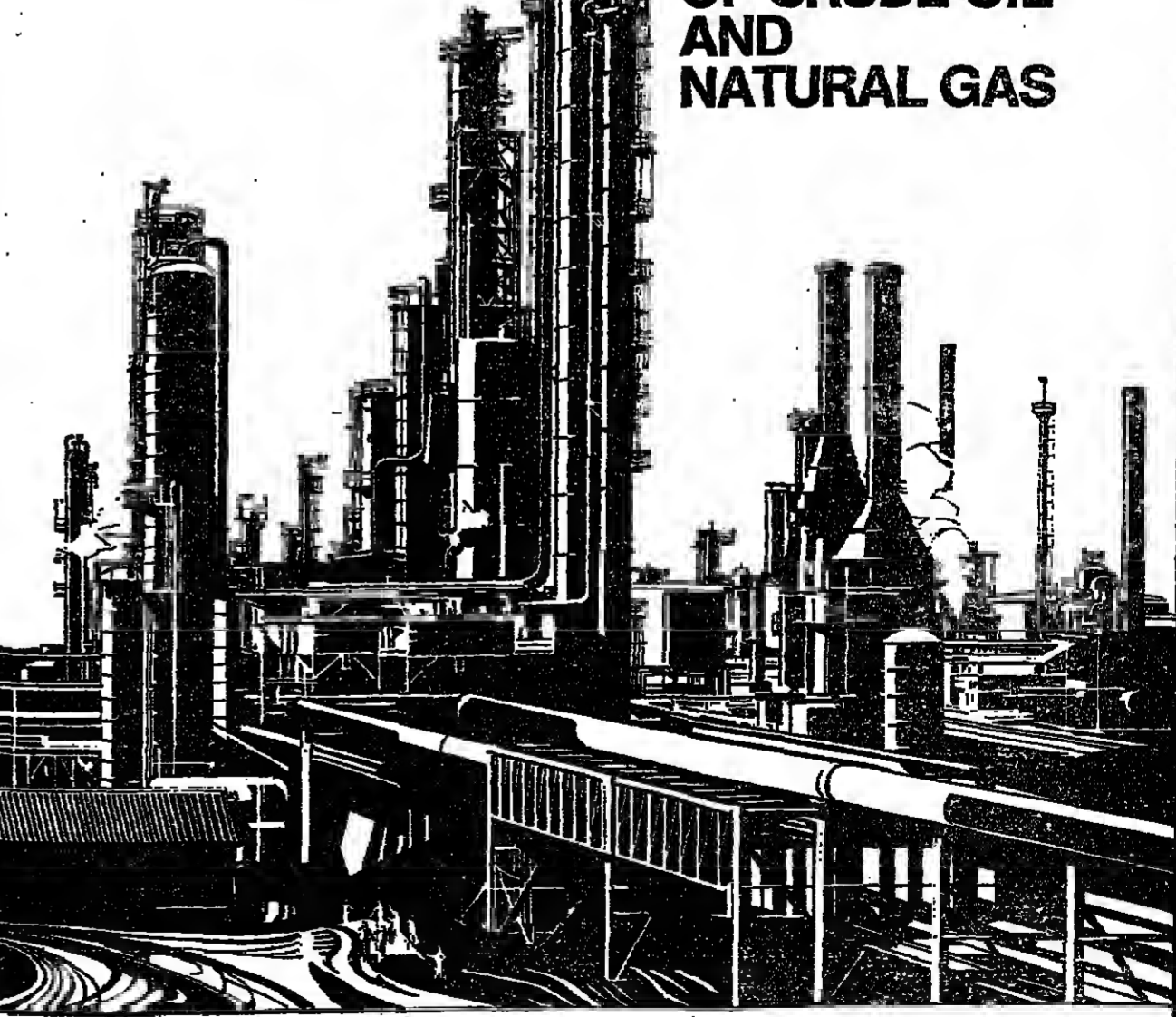
# THYSSEN

Economic progress, higher standard of living, the basis of peaceful co-existence between peoples, nations and economic systems.

A higher standard of living means industrialization and increased productivity, which initiate a worldwide demand for water, energy, chemical and petrochemical products.

THYSSEN RHEINSTAHL TECHNIK is your experienced partner in this kind of activities and plans, supplies and constructs — in close co-operation with well-known international engineering companies —

**TURNKEY PLANTS FOR PROCESSING OF CRUDE OIL AND NATURAL GAS**



**THYSSEN RHEINSTAHL TECHNIK GMBH**  
Königsallee 106 · P.O. Box 8023 · D-4000 Düsseldorf  
Federal Republic of Germany · Tel.: (0211) 3803-1 · Telex: 8588561

## Relations

CONTINUED FROM PREVIOUS PAGE

to cover the increased cost of oil imports, there was no direct balance of payments support from the Arab states.

These issues came to a head in the preparatory sessions of the Afro-Arab summit in Cairo in March this year. Initially, Tanzania proposed the creation of a fund worth \$2bn. to be at the disposal of the African states for the next five years. But the Arab states, despite raising the capital of ABEDA to \$500m., said they could not offer more than \$500m. over the next five years, taking into account their existing bilateral obligations, already estimated at several hundred million dollars.

**Development**

But when the Summit itself opened Prince Saud al-Faisal, the Saudi Foreign Minister, announced \$1bn. for "economic and social development" in Africa. Of this \$120m. was to be added to the capital of ABEDA, \$10m. would go to the African Development Bank (founded in 1964 and based in Abidjan); \$16m. for feasibility studies; and \$2m. for the OAU Liberation Committee. Kuwait next day followed suit, offering \$200m. in soft loans, \$20m. to ABEDA, \$10m. to ADB and \$10m. for feasibility studies. The UAE said it would give the Abu Dhabi Fund \$100m. for African projects, and give \$5m. to ABEDA, the ADB \$10m., and \$5m. to the African Development Bank. The ADB \$10m. is for feasibility studies \$5m. and liberation movements \$2m. Qatar promised donations, by project aid funds, both on

similarly divided, totalling \$97m. Libya promised \$3m. to the liberation movements but said it would also contribute "arms and blood."

This brought the amount pledged to about \$1.5bn., which delighted the African states. They were further satisfied by the subsequent Cairo declaration, which included a blanket call for liberation of Palestine, Zimbabwe, South Africa and Djibouti, and for the stepping up of the oil embargo on southern Africa. A declaration on economic and financial cooperation was made, concentrating on four particular projects: a trans-African road network, evaluation of natural resources in Africa, a pan-African telecommunications network, and the creation of a data bank.

The summit left both sides with the declarations which they wanted, and brought promises of greatly increased Arab aid for Africa. But it was clear that not all the money could be mobilised quickly: in fact it has been estimated that only \$250m. is readily available — the contributions to ABEDA (whose capital was finally boosted to \$886.5m.), the contributions to the ADB and the fund for the study of projects. The rest is likely to work its way slowly through the various development institutions, and the question of how an African state obtains access to the bulk of Saudi Arabia's immense contribution has been left vague. As is explained in the aid article there are considerable constraints on fast disbursements by project aid funds, both on

the side of the fund and the recipient country.

The refusal of the Arab States to provide direct balance of payments or budget support (which would absorb almost unlimited and uncontrollable amounts of cash) could lead to a reiteration of some of the criticisms which the African States have made of the Arab oil producers. The fact that the Arab policy on southern Africa is unlikely to have a decisive effect on the outcome there could lead to frustrations. There are also other potential sources of tension: the principles at stake in the dispute between Morocco, Algeria and Mauritania over Western Sahara; the territorial quarrel between Libya and Chad; and above all Arab policy in the Horn of Africa, presently one of the two most volatile regions in the continent (the other is South Africa).

But if there are tensions in Afro-Arab relations, there are also considerable bright spots. Arabs are gradually getting to know several African states better, and investment projects, such as in Zaïre, are introducing a new kind of Arab to Africans to supplement the long established Lebanese and Syrian traders. The reconciliation between the Arab north and African south of Sudan, achieved by President Jaafar Mohammed Nimeiri in 1972, still holds, despite all the underlying tensions. The memories of the Arab role in the East African slave trade are fading away.

Richard Johns

James Buxton

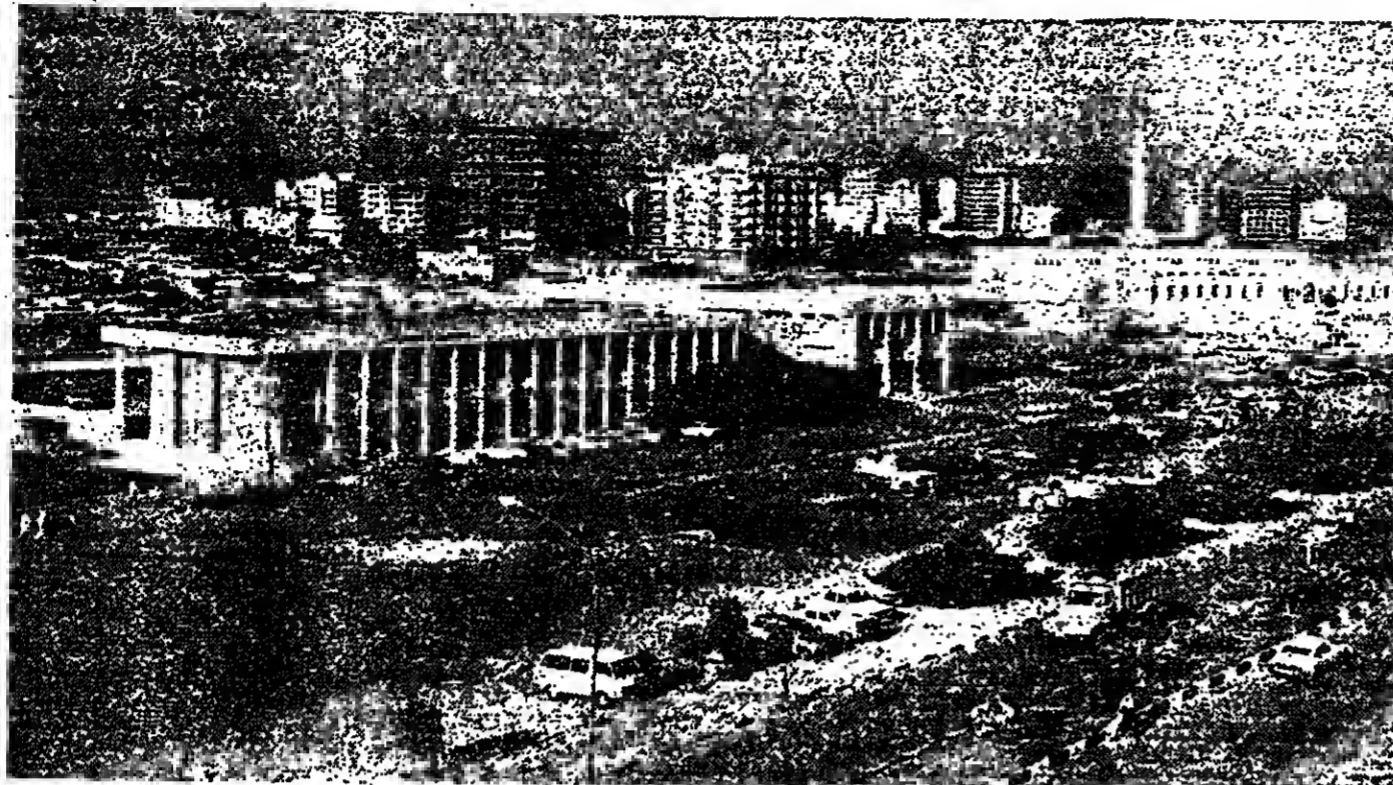






# Telecommunications pose problems

could receive, as meetings which to-day, the most term boost it has the Second World Arab Satellite Communications Organisation (ASATCO) is meeting which company the technical con- to which will lead to the Arab coun- the first regional have their own- ly for telecom- and educational in one band, this tes the possibility rabs: improving common locations themselves and f the world and, cking educational problems. On and, if used un- contains all the spreading revolu- that Nasser's Arabs did in an it in a more com- id efficient form. r many, indeed, if hould be consoli- y a device 23,000 ac rather than cians and organi- thl



The Abu Dhabi headquarters of the Emirates Telecommunications Corporation (Emirtel) which came into operation in September last year.

that the Arab have their own been under stud- r. Initially, the erated mainly by tes Broadcasting ) with an eye on radio broadcasts, e made little pro- be Arab League on- sibility for the e more commer- al Arab Tele- Union (ATU), ject is to strengthen telepho- in telegraph and telex communica- has been particu- tion. It is partic- ent of satellites radio, television and educa- days of Intelsat tional programmes. Because the s. The ATU re- ance in early e concentrating on a particu- lar area the increased signal ations. Unlin strength will permit trans- its regional plan- sions, and from even the remotest areas. The intention is that there should e Radio, which be about 6,000 telepho- circuits and seven television channels. On the ground, in addition to the control stations, the system is to consist of microwave relays and com- puters, a training centre and a research laboratory. The cost of the space segment is estimated to be \$100m. and almost as much could be at stake again for the main ground- systems. The individual govern- ments will be responsible for the all the transmitting and receiv- ar—showed great ing stations. Initially it is: matching Egypt. The pattern which emerges is that the larger, and longer established countries tend to have greater problems than the more recently independent states of the Gulf. Historically, it cannot now be said to have benefited Egypt to have been the first to establish a compre- hensive telephone system in the 1930s. The problems of its overworked system have now become an unfortunate legend. Contact is best made on foot (or by elusive taxi) because telephone connections are almost impossible for twelve hours after ten o'clock in the morning. This sort of difficulty, reflected also in local telex behaviour, has been a major factor holding back business- men from using Cairo as an alternative to Beirut, where 65,000 out of 175,000 phones were put out of action in the civil war, as a commercial centre. As a result, many businessmen have opted for the excellent services in most of the Gulf states, in particular Bahrain. These states have had the advantage of starting their tele- communications programmes from scratch.

When the tender specifica- tions were first released 47 com- panies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Tele- consult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

The task facing the winner is formidable, for the company will have to establish, assess the size of the traffic in differ- ent sectors, the growth patterns, the requirements of television, radio and the education, and the extent to which the existing and planned local telecommuni- cation systems can cope. Some Arab countries are already sophisticated enough to provide this sort of information with- out difficulty. But for some of the comparatively under- developed states there will be acute problems in obtaining dynamic, issuing accurate details. These factors on the ground- erty than had been combined with the sophis- ticated

tion required of the satellites and the ground stations make it likely that the final contract will be awarded to more than one company.

The Arab states have considerable telecommunications problems to be solved on earth. It is a widely accepted fact that standards differ greatly. For an indication, one need look no further than the figures issued by the American Telephone and Telegraph Company for the beginning of 1976. Egypt, for example, has the highest number of telephones in the Arab world, some 503,200, but at only 1.34 units per hundred people. It is on the same sort of average as Algeria, Iraq, Morocco, and curiously, Saudi Arabia (although in this case the statistics reflect a gross overestimate of the population). At the bottom end of the scale are the two Yemens—the North with 4,698 telephones—0.09 per hundred—and the South with 9,876 tele- phones, with 0.63 per hundred. At the top Kuwait had 12.5 telephones per hundred people, followed by Bahrain (9.9) and the UAE (6.3). The percentage of outgoing calls per head reflect an even greater imbalance with some of the Gulf states whose populations are tiny, almost negligible.

When the tender specifications were first released 47 companies applied for documentation. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and International Saudi Arabian Consultants; and a West German company.

Technical and management training. Arabic, English; overseas or U.K. CONTACT TRUM TRAINING SERVICES LIMITED Lloyds Bank Chambers, Lansdowne, Bournemouth BH1 1RX Tel: SPECTRAIN Tel: 41495 Select 0

in communications are considerable. Already, for example, news broadcasts on Arab television networks have become far more up-to-date because of satellite links. In the future, the accessibility of pan-Arab broadcasts to the most desolate regions via small receivers will enormously strengthen the fight against illiteracy, and extensively spread education. Just such a question raises the fundamental issue of whether the Arab countries are capable of developing uniform education programmes. Arab- sat will undoubtedly face the Arabs with deeper questions about the cultural and political nature of their unity than any technical development that has gone before.

Thus it is often easier to tele- phone from Cairo to London than to Alexandria. Many inter- Arab calls are routed through Paris and London. By compari- son, in Bahrain and Kuwait it is not only easy to get local calls, but the major cities of the world are only minutes away. The relative ease with which international calls can be made reflect the fact that there are already 12 Arab countries with satellite earth stations, whose links are divided between the Atlantic Ocean and Indian Ocean Intelsats.

Plans for the future of the Arab world's telecommunications systems have not been confined to Arab- sat. The main vehicle for inter-Arab co-ordina- tion has been the ATU, which had its genesis in the telecom- munication agreement signed at a meeting of the Permanent Communication Committee of the Arab League in 1953. This eventually led to the first meet- ing of the ATU in December 1957-January 1958 attended by Jordan, Syria, Iraq, Saudi Arabia, Lebanon, Libya, Egypt and Yemen. There are now 17 member states, plus the Palesti- ne Liberation Organisation.

The main tasks of the ATU are those of a regional version of the ITU. Its aims include helping the improvement of local services of each country, the reduction in tariffs for tele- phone and telegraph exchanges, and the standardisation of ser- vices throughout the Arab world.

The ITU has co-operated closely with its Arab counter- part. Foremost among its projects has been, since 1973, work on a pre-investment study of the Middle East's telecommuni- cations needs over the next 15 years. The approach adopted has been to divide the area into six zones, which will ultimately be inter-linked by compre- hensive sources including direct dialling although because of the different switching systems in operation in the west and east of the Arab world ATU officials admit there may be some problems.

The first zone covers Saudi Arabia, the two Yemens, Ethiopia and Somalia; the second Saudi Arabia and the Gulf States from Kuwait to Oman; the third Iraq, Turkey, Jordan, Lebanon, Syria, Iran, Cyprus and Kuwait (as well as Greece, Butaria and Yugos- lavia); the fourth Egypt, Libya, Sudan, and Saudi Arabia; the fifth Libya (linked with Malta and Crecece); and sixth the Mashreq stretching from Tunisia to Mauritania. The sur- veys for the first three regions, the second of which was financ- ed by the Kuwaiti-based Arab Fund for Economic and Social Development, are due to be com- pleted by the end of next year.

There is another crucial reason for the need to improve telecommunications: Morocco or Syria and Iraq standards. It has been proved time and again to frustrated businessmen that it is no good having a sophisticated inter- national system if the local con- ditions are bad.

When the tender specifications were first released 47 companies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

The task facing the winner is formidable, for the company will have to establish, assess the size of the traffic in differ- ent sectors, the growth patterns, the requirements of television, radio and the education, and the extent to which the existing and planned local telecommuni- cation systems can cope. Some Arab countries are already sophisticated enough to provide this sort of information with- out difficulty. But for some of the comparatively under- developed states there will be acute problems in obtaining dynamic, issuing accurate details. These factors on the ground- erty than had been combined with the sophis- ticated

When the tender specifications were first released 47 companies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

The task facing the winner is formidable, for the company will have to establish, assess the size of the traffic in differ- ent sectors, the growth patterns, the requirements of television, radio and the education, and the extent to which the existing and planned local telecommuni- cation systems can cope. Some Arab countries are already sophisticated enough to provide this sort of information with- out difficulty. But for some of the comparatively under- developed states there will be acute problems in obtaining dynamic, issuing accurate details. These factors on the ground- erty than had been combined with the sophis- ticated

When the tender specifications were first released 47 companies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

The task facing the winner is formidable, for the company will have to establish, assess the size of the traffic in differ- ent sectors, the growth patterns, the requirements of television, radio and the education, and the extent to which the existing and planned local telecommuni- cation systems can cope. Some Arab countries are already sophisticated enough to provide this sort of information with- out difficulty. But for some of the comparatively under- developed states there will be acute problems in obtaining dynamic, issuing accurate details. These factors on the ground- erty than had been combined with the sophis- ticated

When the tender specifications were first released 47 companies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

When the tender specifications were first released 47 companies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

The task facing the winner is formidable, for the company will have to establish, assess the size of the traffic in differ- ent sectors, the growth patterns, the requirements of television, radio and the education, and the extent to which the existing and planned local telecommuni- cation systems can cope. Some Arab countries are already sophisticated enough to provide this sort of information with- out difficulty. But for some of the comparatively under- developed states there will be acute problems in obtaining dynamic, issuing accurate details. These factors on the ground- erty than had been combined with the sophis- ticated

When the tender specifications were first released 47 companies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

The task facing the winner is formidable, for the company will have to establish, assess the size of the traffic in differ- ent sectors, the growth patterns, the requirements of television, radio and the education, and the extent to which the existing and planned local telecommuni- cation systems can cope. Some Arab countries are already sophisticated enough to provide this sort of information with- out difficulty. But for some of the comparatively under- developed states there will be acute problems in obtaining dynamic, issuing accurate details. These factors on the ground- erty than had been combined with the sophis- ticated

When the tender specifications were first released 47 companies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

The task facing the winner is formidable, for the company will have to establish, assess the size of the traffic in differ- ent sectors, the growth patterns, the requirements of television, radio and the education, and the extent to which the existing and planned local telecommuni- cation systems can cope. Some Arab countries are already sophisticated enough to provide this sort of information with- out difficulty. But for some of the comparatively under- developed states there will be acute problems in obtaining dynamic, issuing accurate details. These factors on the ground- erty than had been combined with the sophis- ticated

When the tender specifications were first released 47 companies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

When the tender specifications were first released 47 companies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

The task facing the winner is formidable, for the company will have to establish, assess the size of the traffic in differ- ent sectors, the growth patterns, the requirements of television, radio and the education, and the extent to which the existing and planned local telecommuni- cation systems can cope. Some Arab countries are already sophisticated enough to provide this sort of information with- out difficulty. But for some of the comparatively under- developed states there will be acute problems in obtaining dynamic, issuing accurate details. These factors on the ground- erty than had been combined with the sophis- ticated

When the tender specifications were first released 47 companies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

The task facing the winner is formidable, for the company will have to establish, assess the size of the traffic in differ- ent sectors, the growth patterns, the requirements of television, radio and the education, and the extent to which the existing and planned local telecommuni- cation systems can cope. Some Arab countries are already sophisticated enough to provide this sort of information with- out difficulty. But for some of the comparatively under- developed states there will be acute problems in obtaining dynamic, issuing accurate details. These factors on the ground- erty than had been combined with the sophis- ticated

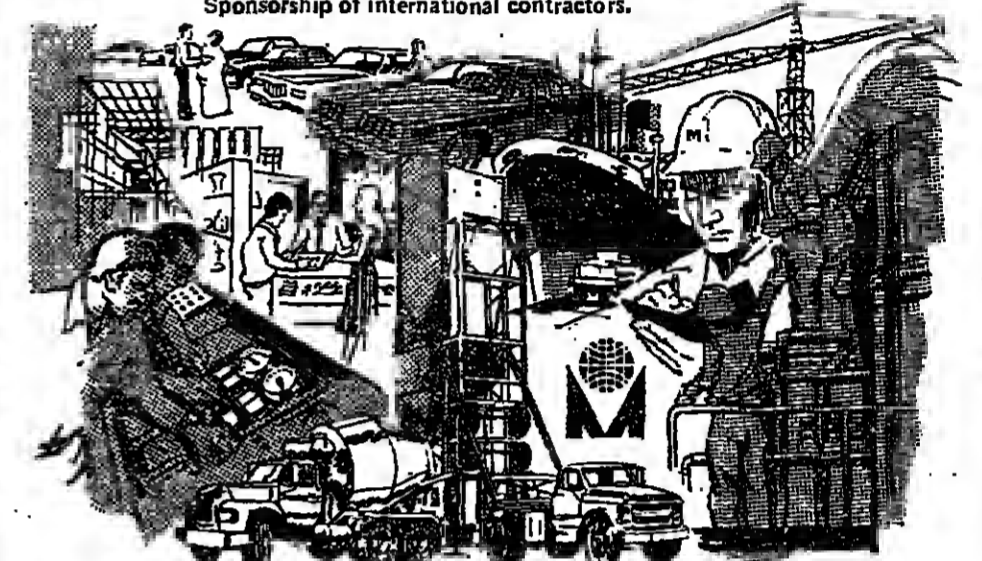
When the tender specifications were first released 47 companies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

The task facing the winner is formidable, for the company will have to establish, assess the size of the traffic in differ- ent sectors, the growth patterns, the requirements of television, radio and the education, and the extent to which the existing and planned local telecommuni- cation systems can cope. Some Arab countries are already sophisticated enough to provide this sort of information with- out difficulty. But for some of the comparatively under- developed states there will be acute problems in obtaining dynamic, issuing accurate details. These factors on the ground- erty than had been combined with the sophis- ticated

When the tender specifications were first released 47 companies applied for documenta- tion. By the deadline of August 1, six companies and groups had submitted tenders for the technical consultancy. These included Comsat General of the U.S., Telesat of Canada, Cable and Wireless of the UK, a mixed grouping called Arab European American (AEA), a consortium composed of Teleconsult (U.S.), Telespazio (Italy), Cie Francaise de Cables Sousmarines et de Radio and Centre Nationale d'Etudes Spatiales (France), and Inter- national Saudi Arabian Con- sultants; and a West German company.

## THE WORLD OF MANNAI

- ENGINEERING**
  - Installation of heavy mechanical & electrical equipment.
  - Fabrication and machining facilities for structural steel work, piping.
  - Airconditioning, ventilation systems and maintenance services.
  - Instrumentation systems.
  - Thermal insulation and corrosion protection.
  - Technical services for commissioning and shut down of power, water stations, petro-chemical, cement, fertilizer and other industrial complexes.
  - Operation and management of sea-going vessels to provide supply and maintenance services for off-shore oil and gas installations.
  - Pumping installations including design, supply and repair/overhauling facilities.
- MARKETING**
  - Automotive sales and service.
  - Heavy construction equipment.
  - Overland inter-continental transportation - with clearing and forwarding services.
  - General engineering goods and construction materials.
  - Household appliances and consumer goods.
- TRADING**
  - Market intelligence services.
  - Direct sales against government tenders.
  - Sponsorship of international contractors.



### A Universal Service in Qatar

MANNAI TRADING COMPANY, P O Box 76 DOHA QATAR Tel. 26251 Telex. 4208 DH Cables. MANNAI Codes BENTLEYS (2nd phase)

'Let me have the best solution worked out. The difficulties will argue for themselves.'

These words were contained in a letter from Winston Churchill to his Chief of Combined Operations in 1942. Taylor Woodrow were then set a major problem; the construction of the mobile floating Mulberry Harbour. And the challenge was met. Ever since, Taylor Woodrow has been solving some of the major engineering problems of the time; particularly in the fast-developing Middle East. We've worked in Kuwait, Saudi Arabia, Oman, Dubai and Jordan. On projects as diverse as hospitals, dry docks, harbours and brand-new road systems. Again, the challenges have been met. Whether it's a question of building in urban centres, helping to develop new industries, or undertaking new infrastructural projects on remote and completely undeveloped sites, Taylor Woodrow can do it. You can call it co-operation (involving integration of joint resources and sophisticated management). We call it Teamwork.

If you would like to know more about us, please contact Donald H. M. Venus A.M.I.M.M. **Taylor Woodrow International Limited** The world-wide team of engineers, constructors and developers Western House, Western Avenue, London W5 1EU Telephone: 01-997 6641 Telex: 23503



If you are doing business in the United Arab Emirates you should know its leading bank.

The bank has all the resources that you need to trade in the Emirates - one of the world's fastest growing markets. And you need a specialist to help you with the complexities of trading with the Emirates. Things are changing very fast and on-the-spot knowledge makes all the difference.

Services extend from multi currency loans, foreign exchange, joint ventures and trade finance to personal domestic banking.

The bank is of course an important participant in the inter-bank market and a major source in the Dirham market, a currency of growing international importance.

If you think that we can help you please contact us:

U.A.E. Head Office: Sheikh Khalifa Street, Abu Dhabi. Postal address: P.O. Box No. 4, Abu Dhabi, United Arab Emirates. Cable address: ALMASRAF, ABU DHABI. Telex: AH2266 and 2267.

London Branch Office: 90 Bishopsgate, London EC2N 4AS. Telephone: 01-626 8961. Telex: 885782 MASRAFG. Cables: MASRAFCITY.

Extensive branch network in the United Arab Emirates.

Overseas branches: Alexandria, Bahrain, Cairo, Khartoum, Muscat, Port Said.

Shortly to be established: Amman, Doha, Mogadishu, Port Sudan, Sanaa.

**NATIONAL BANK OF ABU DHABI**

Total assets at 31st December 1976 exceed £1,000,000,000 (U.A.E. Dh. 7,367,163,308).

ARAB COOPERATION AND DEVELOPMENT XII

AOI aims at arms self-sufficiency

THE ARAB Organisation for Industrialisation is a billion dollar multinational corporation owned by four Arab states: Saudi Arabia, Qatar, Egypt and the United Arab Emirates. Only two years old, it was set up to realise that petrodollar wealth could be harnessed to reduce future dependence on foreign arms suppliers and so avoid many political strings attached to arms purchases.

It has wrongly been assumed by some to have done little since the establishment of its \$1.043bn. capital fund in May, 1975. Soldiers, arms salesmen and diplomats are impressed by the seriousness with which Dr. Ashraf Marwan, the Egyptian chairman of the AOI's Higher Committee, has established its Cairo headquarters—which are an oasis of efficiency in Egypt's desert of bureaucratic chaos—and developed lines of command and communications.

Marwan is a discreet man, an eminence grise in Egypt, who was ostensibly "retired" two years ago from his post as President Sadat's "special secretary for foreign contacts" but who lost no importance behind the scenes. In his early thirties, he has the distinction of being perhaps the only man to have prospered under Nasser (he is the late president's son-in-law) and subsequently under his successor.

Commercial

What has Marwan done during his two years at the AOI? First, taking a commercial approach to the vast enterprise, the Arab market for future arms supplies was examined minutely, beginning with the military requirements in the 1980s of the shareholder countries. Second, international arms consultants were commissioned, to do and have now completed, studies of the immediate Arab market, the secondary Arab market, and finally the foreign arms market, with the stress on African and Third World countries.

A high priority from the start has been the training and development of personnel. Programmes are under way both in Egypt and abroad for special instruction for AOI personnel. The programme is geared so that the production machine can move swiftly into operation once final contracts are completed. Both France and Britain have already been accepting trainees on various management courses.

In May this year in Alexandria, Dr. Marwan announced that the AOI "has decided in principle to make helicopters, jeeps and missiles." This has been his only public comment, but contracts are expected to be signed soon for a series of joint enterprises with Westland Aircraft and Rolls-Royce for the Lynx helicopter, with BAC for Swingfire anti-tank missiles, and with American Motors to make Jeeps.

In addition, parallel talks have continued to try to hammer out agreements in principle with the French Thomson-CSF and Matru concerns, who make the Crotale ground to air missile system (which the Egyptian Air Defence arm has examined with a view to replacing the ageing Sam missile system), and with Dassault and Aerospatiale, which make aircraft and engines. However, one responsible French source admitted "AOI production plans for Mirage fighters and Crotale missiles seem to have been put back."

There are indications that the AOI talks with British companies progressed more smoothly over questions of how much capital the foreign arm-makers should put into joint enterprises. Early plans for 31,490 joint ventures were modified in favour of smaller foreign shareholdings—though exact proportions depend on whether the AOI joins forces with a single partner or more than one. For the moment, the AOI has four factories, handed over by Egypt's Ministry of War Production as its contribution to

the share capital. These factories were used in the past for Egypt's vestigial aircraft, engine and missile industries which ground slowly to a halt during the 1960s. In addition, two more factories could be made available, one of which currently produces ordnance.

Factories

It must be admitted that the factories involved have been run down since the refusal of the Russians to permit the maintenance of sophisticated equipment in Egypt. Egypt's war planners had hoped that at least one aircraft factory—which once produced the Gombouria jet fighter—would be used for MIG maintenance but Moscow insisted they be sent back to the Soviet Union for such work.

It is important to distinguish between the different bats Egypt wears vis-a-vis the AOI. First, it is a shareholding participant. Second, as the possessor of the largest Arab army it will be a principal buyer of AOI products. These functions are quite separate from the bilateral arrangements between the Egyptian armed forces and foreign arms manufacturers—like the army's purchase of British Swingfire missiles, and future air force purchases (paid for by Saudi Arabia) of Mirages and Crotale missiles.

While the AOI was created with a strictly commercial mandate—hence the huge amount of marketing homework—last year the Egyptians began to exert considerable pressure on the AOI Higher Committee for what amounted to a major change of policy. Egypt wanted the AOI to help with the repair, maintenance and modification work on Egyptian equipment which has been run down for lack of Soviet spares.

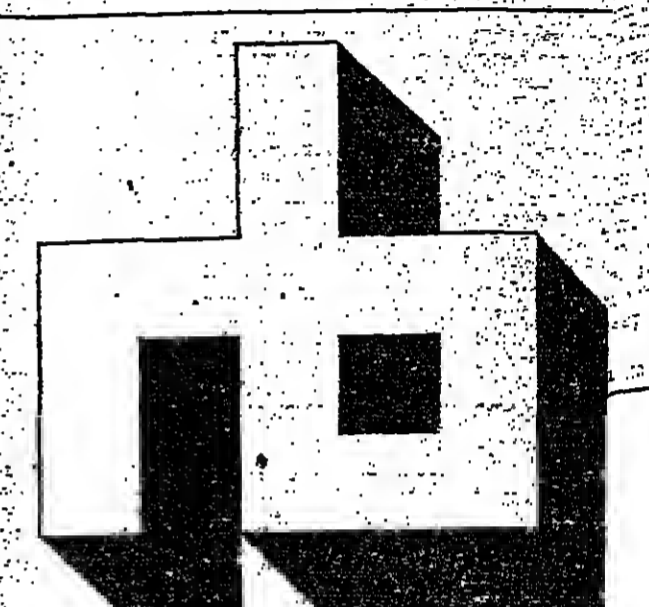
The Egyptian viewpoint was explained by a military source. "The idea of the AOI is for the Arabs to be better armed. But if the Egyptian Army, the

IRAN? Your freight forwarder is STANDARD

Conventional shipping. Heavy haulage. Project shipping. Combined sea/road service via Samsun. Door-to-door express TIR trailer. Door-to-door refrigerated trailer. Door-to-door container service with 20', 35' and 40' containers. Ro/ro service from Immingham via Bandar Abbas. Rail groupage and full load service from Kings Lynn and Grangemouth. Daily road groupage departures from Greenford (Standard's terminal) to Teheran.

STANDARD DELIVER-THROUGHOUT THE MIDDLE EAST

STANDARD FREIGHT FORWARDERS LTD 100 Brompton Road, Knightsbridge, London SW3 1ER. Telephone: 01-584 6836 Telex: 895685/6



THIS SYMBOL IS YOUR ASSURANCE OF QUALITY & TOTAL SERVICE IN KUWAIT AND THE GULF

Standard Freight Forwarders Ltd, 100 Brompton Road, Knightsbridge, London SW3 1ER. Telephone: 01-584 6836 Telex: 895685/6

Shipping gets off to a slow start

WHEN THE revenues of the oil exporting countries began to multiply rapidly four years ago, it was generally assumed in Western shipping circles that the producers would spend a substantial amount on shipping, thus capitalising on their control of their raw material by taking a large stake in its distribution.

In the event this did not happen and hindsight shows that, given the state of the world tanker market, there may have been some wisdom in this. Certainly, new ships have been placed under Middle Eastern flags, but they have been comparatively few. And most Arab fleets which are being built up are doing so with a large measure of Western co-operation.

The problems they face are those that have plagued all other international shippers. The Arab Maritime Petroleum Transportation Company (AMPTC) is jointly owned by all the OAPE states and is based in Kuwait. It has eight tankers totalling more than 2m. dwt., but in spite of the advantages they obviously have as carriers of their own crude, two of the largest craft in the fleet, the 269,000-dwt. Alghadi and the 313,000-dwt. Al-Rafidain are laid up in Norwegian fjords—and AMPTC is not buying new carriers at the moment.

The Kuwait Oil Tanker Company, oldest of the Arab tanker fleets, is little better off. With 1.6m. dwt in 10 tankers, it lost KD4m. in 1975, and it seems unlikely that the figures for 1976, which have not yet been published, will show a return to profitability. KOTC is still buying ships, though it is now putting the emphasis on gas. Four liquefied petroleum gas (lpg) carriers are due to be delivered from France next month, with a total capacity of 70,000 cu. metres. Like AMPTC and the other Arab fleets, KOTC is plagued by the fuel costs that have beset international shippers. In KOTC's case, this is because the Kuwait National Petroleum Company decided against special discounts for Arab shipping on cost grounds.

Companie Nationale Algerienne de Navigation (CNAN) is in some ways better off than the other two. Algerian Government owned, it is relatively indifferent to free market fuel prices. It carries all Algeria's gas, and that is that.

It also has designs on non-energy cargoes. At present it has two 27,000 dwt general cargo vessels, two 29,000 dwt bulk-carriers, and five container and ro-ro vessels on order from Japanese yards, and when they are delivered Algeria's own shipping line will be carrying about 25 per cent. of its non-energy trade—a 50 per cent. by 1980, look fairly realistic.

The Gulf states have a similar target in mind. They share the United Arab Shipping Company with Iraq which last year placed under their flag almost 50 of the most modern multi-purpose cargo vessels in the world, working under a well-planned Mediterranean-Europe-US-East shipping network.

Amongst other ventures, the Norwegian shipping group has sold two 35,000 (dwt) bulk carriers to a new Saudi Arabian company, which owns and operates on a 50 per cent. split with the Abdul Latif Jameel company of Jeddah. Under the terms of the agreement, they have been chartered back to Norway for five years, but very few of the Saudi Arab flag. A similar operation is the

Saudi Orient Maritime Line (SOMOL) which is part Hong Kong, part Saudi Arabian owned. It has already formed a monthly U.K.-Jeddah-Anaba service and has applied to join the Europe/Red Sea Conference.

capacity problem in the international tanker market, so there can be little incentive for the oil producers to buy their own fleets, which might prove uneconomical to run and maintain for some time to come. The over-capacity problem does not exist among general cargo carriers, however, and it is here that the new emphasis is being placed. Apart from the growing proportion of non-oil carriers in the Algerian and Egyptian fleets, the Federal Maritime Company, an Egyptian-Libya-Syria partnership, has a growing fleet of general cargo vessels—although it only recently put four 4,000 dwt. general cargo carriers out to tender, signifying that even this sector of the Arab shipping market is not all that healthy in the present climate.

It will remain to be seen whether, as and if world trade improves, the Arab oil producers see a need to channel some of their surpluses into shipping fleets which could give them the capacity to act as their own import-export carriers.

Can you keep up with today's fast developing communication needs? If not consult

DIRECT SYSTEMS LIMITED

Telephone equipment for Bankers, Brokers, Agents, Oil Companies and all organisations requiring immediate connection to direct and change-lines. In use in Bahrain, The United Arab Emirates, Singapore, as well as the United Kingdom. Reliable delivery, competitive prices, custom-designed

Enquiries to: DIRECT SYSTEMS LIMITED, 151A Long Lane, London SE1 4PN or Local Telephone Authorities.

EUROPE, MEDITERRANEAN & MIDDLE EAST TRADE TRAFFIC AND TRANSIT 1978-1980

A major survey of prospects for trade and transport between Europe and the Middle East and Africa is now in preparation. It will include analyses and five-year projections of: Economic growth by country and sector; Industrial plans and projections; Consumer markets; Imports and exports by commodity group; Transport requirements by mode; Transport developments; Impact on transit countries. The survey will be carried out in association with leading international economic research institutions, several specialist research firms.

For further details write to: BROWN MANSELL ASSOCIATES LTD, 15, High Road, Byfleet, Surrey KT14 7QH

T. GARGOUR & FILS

Imports/Exports, Shipowners and Agents, Insurance, Industrial and Manufacturers, Catering, Hotel and Restaurant Owners and Branches in Beirut, Amman, Latakia, Cairo, Alexandria, Aden, Sanaa, Kuwait, Tunis, Sudan, Saudi Arabia, The Gulf, London. Offer co-operation as reliable contacts throughout the Middle East.

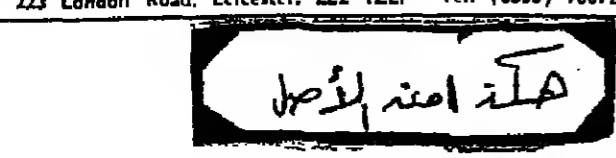
T. Gargour & Fils (UK) Ltd, P.O. Box 1, London EC3N 3PP. Phone: 01-427 8297. Telex: 397692

adamjee's fine cotton fabrics go a long way around the world



delightful colours beautiful prints. RANGE OF PRODUCTS: Cotton Yarn (HANKS & CONES) 10s to 100cs. Cotton Fabrics - width 36" to 65" Grey, Bleached, Dyed and Printed. Pique, Lawn Cambric, Linen and Denim (Cloth) Cotton Sewing Thread - Full range.

adamjee AOAMJEE INDUSTRIES LIMITED. 223 London Road, Leicester, LE2 1ZE. Tel: (0533) 700725



Unity

Continued from page 1. The Arab word meaning 'unity' rather than 'unification' or 'reunification'. The word, half-laid political philosophy highlights the difference that the Arabs who continue to be dominated by the redefinition of front-line Islamic glories, have had to overcome terms of government, suitable to their aspirations and the contemporary world.

Compared with the 1950s and 1960s, the present decade has been one of remarkable stability for Arab nations, which have all managed to maintain themselves in power with varying degrees of repression. In the immediate future the continuation in power of several of them—including President Sadat's in Egypt and President Assad's in Syria—may depend on whether the drift in the region towards peace or war with Israel. That is also true of the moderate Mr. Yasir Arafat's leadership of the Palestine Liberation Organisation. Humiliating defeats in 1948-49 and 1976 were followed by a

succession of upheavals and coups in the Arab world. Deadlock in the peace-negotiating process initiated by the U.S. could have the same result. However, despite political divisions and the military weakness of the confrontation states compared with Israel and the urgent need to concentrate on economic development, the Arab states are even less likely than ever to compromise with Israel's minimal demands. In 1973 the Arabs grasped fully the power of their "oil weapon" and the possession of financial resources derived from it. Temporarily, the blade may seem blunted by market conditions and the close U.S.-Saudi rapprochement but confidence created by it is still strong.

With the exception of the "Rejectionists"—Iraq, Libya, and the extremist subsections of the Palestinian movement—the Arab states have committed themselves broadly to progress towards a settlement with Israel managed, perhaps with the help of a General Conference, by the U.S. Mr. Begin's

No loyals

From the Times. Sir... of the Commission... detailed... and those... to be managed... created with... "recreation... member... of these... EOC com... operated... reach... Margaret... P.O. Box... New Priest... Gray's Inn

Pre-ana

From the... the bank... not... Over... 22... be... 22... that... a... public... contracts... on... the...



# The NCB's brave new dream approaches

By DAVID FISHLOCK, Science Editor

New world for coal technologies have two overriding objectives. The first is to improve the ratio of hydrocarbons to gas in the raw material. At a nominal ratio of 0.8 : 1, coal is at a sad distance from the National Coal Board's objective of 1.8 : 1. The second objective is to turn it into a form more convenient to handle than a friable solid.

No single piece of alchemy is likely to be discovered that might turn such a heterogeneous solid as coal into a chemically richer fluid. But the Stoke Orchard chemists have found three processes which they believe might be permuted to provide marketable chemical feedstocks or fuels.

The most exciting of these is the so-called "supercritical extraction" process, discovered in the late 1960s, demonstrating the readiness of valuable constituents of coal to boil off when exposed to a solvent gas under high pressure. The idea is to heat coal at very high pressure—as high as 3,000 lbs per square inch—in a relatively inexpensive solvent such as toluene. Under such conditions constituents of coal baving fairly high boiling points will vaporise readily without decomposing.

Given the right coal and conditions, as much as 46 per cent of the coal can be dissolved out in this way, yielding a hydrocarbon fraction much richer in hydrogen and essentially free from minerals. Moreover, experiments at Stoke Orchard indicate that this glassy-looking extract should be easily converted to hydrocarbon, oils or chemicals.

The NCB chemists are presently testing a £750,000 pilot plant built by Woodhall Dickham to demonstrate supercritical extraction as a continuous operation. It has been

designed to treat up to 20 kilograms an hour of powdered coal, mixed into a slurry with solvent. This shiny stainless steel plant is a forerunner of a "white-collar" coal technology which claims the cleanest of cleanliness than are customary from any coal-using industry to-day will be essential if very high operating pressures are to be maintained.

## Precipitates

The plant is intended to separate coal cleanly into two fractions. The solvent vapour penetrates deeply into the natural pore structure of the coal particles. The hydrogen-rich fraction dissolved by this process simply precipitates when the pressure is lowered. The solvent itself, which has entered into no chemical reaction, is easily recovered and recycled through the plant—a vital aspect of process economics.

But the coal residue, although relatively lean in hydrogen, still has its uses. This too is cleanly separated from the solvent—there are no gummy remains to clog up filters—and proves to have the same calorific value as the original coal. In an integrated coal conversion plant the chemists see this residue being fed into a gasifier of some kind, probably one using the Coal Board's fluidised-bed combustion technology, to yield a hydrocarbon gas either as fuel or feedstock for further conversion.

The supercritical extraction plant now being commissioned at Stoke Orchard is envisaged as the precursor of a £15m. demonstration plant consuming up to 1 ton of coal an hour, probably located at a colliery. The scientists are hoping that this might be funded as a national development pro-

gramme, or—as with the £17m. fluidised-bed experiment under construction at Grimthorpe Colliery—by the International Energy Agency.

Coals differ widely in their structure and composition, so an important part of the research has been to explore the behaviour of different coals. It might be expected, non-caking coals, high in volatiles, show the greatest promise. In partnership with a U.S. company, Catalytic Incorporated, subsidiary of Air Products and Chemicals, Stoke Orchard has investigated U.S. coals such as Illinois A. This collaboration has also delved into process economics for a prospective integrated coal refinery consuming 3m. tons a year, to conclude that the results are encouraging.

But to transform the glassy, easily melted extract into a chemical feedstock or fuel would call for another big process step, also being demonstrated on pilot-plant scale at Stoke Orchard. This is hydrocracking technology, which simultaneously supplements the hydrogen content of the coal extract while cracking it to a catalyst into liquid and gaseous hydrocarbon fractions. In what Dr. Gibson calls a delightful example of collaboration between the coal and oil industries, British Petroleum has provided a small, high-pressure continuous hydrocracker. It involves pressures still higher than supercritical extraction—up to 5,000 lbs per square inch.

Already the hydrocracker has notched up about 1,000 hours. The NCB chemists have produced a passable synthetic petrol called Cresto—Chemical Research Establishment Stoke Orchard—from coal by this process. At around 84 its octane rating is too low, but was easily boosted to over 90 to allow Mr.

Alex Eadie, to drive a lawn mower running on Cresto on a recent visit to the laboratories. The next two or three years—says Dr. John Whitehead, the chemical engineer who designed the supercritical extraction plant—should show whether a coal refinery based on such processes is a serious technical proposition.

But what point might be served in opening up an entirely new market for British coal, to replace those lost in the gas, industry, railway and domestic markets since World War II, if the mines themselves cannot deliver? Sir Derek Ezra has delivered many warnings about the declining productivity of his miners. His principal customer, the electricity industry, which accounts for over 60 per cent of his sales, delivered a sharp warning last month that the kind of coal price increase forecasted by the new wage levels being sought by British miners could mean a cut in the electricity industry's demand by 10m. tons next year.

## Productivity

Although electricity's consumption of coal rose last year, total output of saleable coal from NCB pits fell by nearly 5m. tons to only 118m. tons. And this was in spite of the introduction of the "advanced mining technology" programme. This is the plan to install integrated coal-cutting systems, bringing together the most advanced ideas in a package tailored to the specific conditions of the mine. Advanced mining technology is already being installed on at least one colliery in each of the 12 NCB mining areas.

But the NCB acknowledges that advanced mining technology is only a partial answer to greater pit productivity, and

one that still leans heavily on the presence of the miner close to the coalface. For the immediate future—the period to 1985 covered by the Plan for Coal—the NCB is depending heavily on opening up rich new veins such as Selby, Belvoir and the new anthracite discoveries in South Wales. These should be intrinsically more productive, than some of the well-worked veins of to-day.

But the commercial coal refinery is probably 15 or 20 years away yet. It will take time to prove the technology and—not least—the safety of the advanced chemical engineering involved. It will probably take the same time for the price of oil and natural gas to rise to levels in Britain where coal conversion can seriously compete.

By then the NCB hopes it will have a new approach to the winning of coal, one that avoids the necessity for a large underground workforce exposed to the dust, explosion, rock fall, traffic, and other hazards of the deep mine. Ideally, it will have a coal-mining technology that matches the elegance of its "white-collar" coal refinery concepts.

The most obvious question is whether a process such as supercritical extraction might be applied to the coal seam itself, much as steam is used to extract sulphur. As a principle it would be akin to underground gasification, which also leaves a substantial fraction of the coal in the ground.

The idea seems to have two serious difficulties. One is the problem of maintaining the very high pressures required for supercritical extraction, at rates perhaps 10,000 times as fast as might be achieved by unpressurised solvent. The other is that, compared with steam, toluene is a relatively expensive



Sir Derek Ezra, chairman of the NCB.

solvent and the nature of coal strata is such that there would be a serious risk of its disappearing through a fissure. We simply don't see how to use the supercritical extraction for in situ mining, admits Dr. Gibson. But his scientists have not given up. He sees it as a "way out" possibility, a solution to which may yet emerge from the work of a study group being set up at the NCB's other main research centre, the Mining Research and Development Establishment at Bretby, Derbyshire.

Over the past year this laboratory has been seeking advice very widely from leading research centres on ideas that may lead to a new way of

cutting coal—lasers, chemicals or biochemical agents, solvents, or whatever. The new study group's task will be to advise the NCB where to concentrate its resources as the new ideas mature.

Which technology might emerge to replace the face workers in future, Dr. Gibson will not try to predict. But of one thing he is sure: the two research activities of the Coal Board, on utilisation and mining technology, which traditionally have been kept separate and reported to different Board members, will henceforth be moving much closer together, as it seems that their work concerns two aspects of a single problem.

## Letters to the Editor

mortgages. The case of case of empor applies and any other view strikes me as totally illogical.

As far as the interest rate charged by Access is concerned, it is of course true that if borrowing funds over a period the rate can work out at nearly 23 per cent. For those like myself, however, who use it as a charge card and pay the complete sum back monthly one is, in effect, obtaining between four and six weeks free credit for which Access has to pay 7 per cent or so. I believe about 50 per cent of credit card customers come into this category. Those who borrow for short periods pay considerably less than the maximum.

Lastly Mr. King states that the giants of High Street credit trading do not discriminate against their long standing customers. I am afraid that I can give two instances where this is just not true. For years I had a subscription account with Hepworths, the tailor, for which no interest was charged. The present rate charged is 2 per cent per month. The second example is Blue Star Garages which had a charge card scheme, for which no subscription was levied but accounts had to be settled monthly. I had one of its cards for 10 years until July when I was told that in future there would be an annual subscription of £4 plus VAT per card. Settlement is now within 14 days of the statement after which 2 per cent per month interest is charged. It has lost my custom.

It is worth bearing in mind that there is no subscription fee with Access and is used as a charge card in free and convenient in use and in my experience second to none.

B. G. W. Jamieson,  
13 Russtock,  
Tunbridge Wells, Kent.

## No conflicting loyalties

From the Features Editor, The Times

Sir—As one who might be described as an independent member of the Equal Opportunities Commission—I am a Features Editor of The Times newspaper. I would like to comment on the allegations of "divided loyalties" among those of my fellow members who are associated with TUC, CBI or educational establishments. (A "creature of government," September 21.)

These members of the EOC, of course, have the interests of their organisations and their own members at heart, but such interests are not inimical to the interests of all women—and all men for that matter.

In no circumstances in our discussions which have continued for almost two years have I seen any evidence of conflicting loyalties. In contrast, all EOC commissioners have co-operated wholeheartedly to unanimous decisions.

Margaret Allen,  
P.O. Box 7,  
New Printing House Square,  
Gray's Inn Road, W.C.1.

## Pre-contract analysis

From Mr. J. Dingle.

Sir—While I support Mr. D. Overton's general view (September 22) that thorough pre-contract analysis is crucial to the profitability of major export contracts, I suggest his emphasis on the alleged lack of com-

mercial training in the education of professional engineers obscures two factors which are likely to be more immediately relevant.

(1) Research into the potential of new market areas is too closely identified with analysis of supply-demand balances, and not concerned enough with evaluating commercial (including political) practice in such areas. Effective market research needs to have the scope of overall "Business Research."

(2) The views of the eventual project manager should be given equal weight with those of the sales manager in pre-contract decision making. This is possible only if the project manager is himself involved in key negotiations with the prospective buyer.

Neither factor depends on the engineering background of would-be exporters. Performance in both can no doubt be improved by some form of education. But I rather doubt that academic "management thinkers" (to use Mr. Overton's phrase) would be adequately equipped to provide it. Guidance, if it is to make a useful contribution to the profitability of technological exports, will have to come from those in up-to-date and practical contact with the technology and with the markets.

John Dingle,  
Suite 1, Hurcourt House,  
19, Cavendish Square, W.1.

## Competing for foreign orders

From the Head of the Marketing Faculty, Ashridge Management College.

Sir—The insight reflected in Mr. Overton's letter (September 22) demands fuller development if we are to meet the commercial challenges identified by him in securing and then profitably implementing major foreign projects.

Our problems arise from four major sources. Most training in salesmanship still assumes that sales arise from a two person, salesman / buyer, interaction, whereas the reality is that teams from buying and selling organisations interact to produce sales, with all the political problems that this raises. Add to this the fact that customer and seller will often be involved with Governments of the two nations and it is clearly training in salesmanship (if that is the appropriate word) needs to focus on how to manage the complex interpersonal/political problems.

Conventional salesmanship concentrates on getting the order and hardly at all on the important need to get the purchase into use with maximum organisation-wide commitment and satisfaction from the customer. This means understanding the customer in depth and from the beginning of the selling period effectively acting as a consultant to the buyer on implementation.

There seems to be limited understanding of sophisticated investment appraisal approaches, used by customers, and less understanding of sensitivity and risk analysis training in these areas has two effects: it minimises the chance of occurrence of the type of problem now faced in Nigeria; additionally it allows the salesman to persuade the prospect to change some of the shaky assumptions underlying most project appraisals.

As Mr. Overton points out, too many British organisations concentrate on offering exclusively technological solutions to customer problems. Current research shows the importance of service (nearly eighty separate elements have been identified)

## Indices are too broad

From Mr. M. Ashfield

Sir—Yet another letter on accounting for inflation—but (I hope) a fresh issue. Anthony Harris wrote on September 7 (page 2) concerning the use of indices already appearing from the Department of Industry, to adjust historic to current values: "No difficulty there... I think his optimism about those indices is unjustified. Indeed, I suggest their use will introduce fresh distortions into the comparison of companies' performance with that of other companies, and the comparison of one industry with another."

Most of the indices available from the Central Statistical Office for the prices of specific assets, are too broad in their coverage. There is, for example, only one figure to cover each of the following: cranes, passenger cars, office equipment and machinery, compressors, stationary engines and steam turbines, lifting and winding devices. There are only two figures to cover all metal-working machine tools, and two to cover all machinery used to process food and drink, bottles and cans.

Even worse, these asset-specific indices only cover equipment and machinery produced in the U.K. and do not cover anything imported. Thirdly, although the CSO makes a rough adjustment of its figures for the effects of the exchange rate, it does not try to take account of imported equipment, these industry-specific figures will be of no use to the many firms whose activities spread across several different industries. Moreover, a firm which is only in engineering (for example) will not be helped by having to use one industry index, along with about 20,000 other firms in that vast industry.

The point is that if the composition of a firm's assets and/or the age of those assets is not the same as the composition/age of the assets used by the firms in the CSO's over-broad categories, the firm's results will be biased — and whether favourably or unfavourably, neither the CSO can tell. What is worse, whole industry which is modernising its equipment more rapidly than another industry may be unfairly penalised, if the firms within it use the CSO's asset-specific indices. In an age when many firms have a quarter of their production abroad, there is in the official booklet only the vaguest of hopes for setting asset-specific indices to cover other countries.

I have the highest admiration for the official statisticians, and I agree with the people who say that the assets used by the firms in the CSO's over-broad categories, the firm's results will be biased — and whether favourably or unfavourably, neither the CSO can tell. What is worse, whole industry which is modernising its equipment more rapidly than another industry may be unfairly penalised, if the firms within it use the CSO's asset-specific indices. In an age when many firms have a quarter of their production abroad, there is in the official booklet only the vaguest of hopes for setting asset-specific indices to cover other countries.

I have the highest admiration for the official statisticians, and I agree with the people who say that the assets used by the firms in the CSO's over-broad categories, the firm's results will be biased — and whether favourably or unfavourably, neither the CSO can tell. What is worse, whole industry which is modernising its equipment more rapidly than another industry may be unfairly penalised, if the firms within it use the CSO's asset-specific indices. In an age when many firms have a quarter of their production abroad, there is in the official booklet only the vaguest of hopes for setting asset-specific indices to cover other countries.

M. A. F. Ashfield,  
22 Highfield Road,  
Rickmansworth,  
High Wycombe, Bucks.

## To-day's Events

International Monetary Fund and World Bank annual meetings open in Washington.

EEC Agriculture and Fisheries Ministers begin two-day meeting in Brussels.

Special meeting of panel of Senate Foreign Relations Committee in Washington to discuss proposed unilateral policy declaration by U.S. Government to extend U.S.-Soviet Strategic Arms Limitation agreement beyond October 3.

Liberal Party Assembly begins in Brighton with four informal commissions and an all-day seminar on energy, with particular emphasis on nuclear energy.

National union officials in talks on dispute of production workers at British Leyland's Lancashire bus and truck factories.

New rules in operation for sale of cheap Stand-by and Skytrain airline tickets and first flight of Laker Skytrain from Gatwick to New York.

Increase in some bread prices. Retailers' agreement comes into effect to limit profit margins in 5 per cent on three big selling lines of instant coffee—for some small shops the limit will be 7 per cent.

Mrs Margaret Thatcher, Conservative Leader, continues tour of Scotland.

Mr. A. Wedgwood Benn, Energy Secretary, opens National Energy Managers' Conference—expected announcement of Government's latest energy saving proposals with new tax incentive among measures being considered.

Mr. John Methren, director general of CBI, addresses Food Manufacturers' annual conference, Grosvenor House Hotel.

Mr. William Rodgers, Transport Secretary, opens International Symposium of European Conference of Ministers of Transport, Imperial College, London.

Mr. Fred Mulley, Defence Secretary, opens Electronic Exhibition, Royal Lancaster Hotel, London.

Statement by Prince Philip at end of Industrial Society conference, Buchanan Arts Centre, Aberdeen University.

Sir Robin Gillett, Lord Mayor of London, attends luncheon with chairman and Board members of the Port of London Authority at World Trade Centre, E.1 and later receives Senor Manuel Tello, Mexican Ambassador, at Mansion House.

British Fashion Fair opens at National Exhibition Centre, Birmingham.

COMPANY RESULTS

Platts (half-year), John Laling and Son (half-year), Willis Faber (half-year).

COMPANY MEETINGS

See Week's Financial Diary on Page 12



**Rembrandt country is Rabobank country.**

Rembrandt, the famous Dutch painter, worked all his life in Holland and yet created art with a worldwide appeal.

The Centrale Rabobank is very much at home in Holland—and increasingly in the world at large. With a strong agricultural background, the Centrale Rabobank heads a cooperative banking organisation with more than 3100 offices and a combined balance sheet total of well over 50 billion Dutch guilders (US \$ 20 billion) in 1976.

This makes the Rabobank not just one of the largest banks in Holland (and one of the 40th largest in the world) but also a bank with deep roots in almost all sectors of Dutch economic life.

We're now expanding worldwide with a full range of banking services. We are equipped to assist our international oriented clients, and are active in the Euro-currency and Euro-bond market.

Our international transactions in foreign currencies, Euro-credit loans and participation in new issues enjoyed a remarkable growth.

We are on our way to an important international position. And we intend to achieve it in the good Dutch tradition of solidity, with an eye for detail and imagination.

**Rabobank**  
Dutch Masters in Banking.

Centrale Rabobank, International Division, St. Jacobsstraat 30, P.O. Box 8098, Utrecht, The Netherlands, Telephone 030-369111.







Expanding by increasing dividends

Stable

convenience of readers the dates when some of the company dividends are expected in the following table...

Table with columns: Date, Announcement, Date, Announcement, Date, Announcement. Lists various companies and their dividend dates.

NT ISSUES

EQUITIES

Table with columns: High, Low, Stock, Change. Lists various stocks and their price movements.

FIXED INTEREST STOCKS

Table with columns: High, Low, Stock, Change. Lists various fixed interest stocks and their price movements.

"RIGHTS" OFFERS

Table with columns: Stock, Closing Price. Lists various stocks and their closing prices.

Works Loan Board rates

Table with columns: Rate, Description. Lists various loan rates and their descriptions.

BASE LENDING RATES

Table with columns: Bank, Rate. Lists various banks and their base lending rates.

INTERNATIONAL COMPANY NEWS

Strong interim upsurge by Straits Trading

AN INCREASE in first half profits of more than a fifth is announced by Straits Trading...

Malayan Breweries

SINGAPORE, Sept. 25. PRE-TAX profits of Malayan Breweries rose by 11 per cent...

Swiss RE. lifts dividend

ZURICH, Sept. 25. AN INCREASE in annual dividend from Sw.Frs.90 to Sw.Frs.100 was announced by the Board of Swiss Reinsurance Company...

Oetker sales slip lower

FRANKFURT, Sept. 25. THE OETKER family, which controls a widely diversified group with interests in food, transport and shipbuilding...

German bond trading

FRANKFURT, Sept. 25. TRADING resumed 10-day in three eight-year 10 per cent German public sector loans...

Money and Exchanges

Bank of England Minimum Lending Rate 6 per cent. Interest rates were fairly steady in London last week...

Table with columns: Bank, Rate. Lists various bank rates and their descriptions.

Table with columns: Bank, Rate. Lists various bank rates and their descriptions.

Table with columns: Bank, Rate. Lists various bank rates and their descriptions.

Table with columns: Bank, Rate. Lists various bank rates and their descriptions.

Table with columns: Bank, Rate. Lists various bank rates and their descriptions.

Table with columns: Bank, Rate. Lists various bank rates and their descriptions.

Table with columns: Bank, Rate. Lists various bank rates and their descriptions.

Table with columns: Bank, Rate. Lists various bank rates and their descriptions.

MINING NOTEBOOK

Cross-currents buffet Western Mining

"THE COMPANY and its subsidiaries constitute one of Australia's largest diversified mining groups. It is the fourth largest integrated nickel producer in the non-Communist world...

Western Mining will no doubt hope that when the day comes to exploit Yeelrie and Roxby Downs Australia will have...

Speculative lure Even so, income from these

INSURANCE

Inflation increases need for adequate profits

MEMBERS OF the Chartered Insurance Institute attended the 17th annual conference last week. The conference, as usual, was a discussion, part formal business, and part informal papers were presented on three aspects of communication...

London tea sales

At the tea sale held in London last week 49,547 packages of tea were sold. This is a record for the tea market...

FORWARD RATES

Table with columns: Bank, Rate. Lists various forward rates and their descriptions.

CURRENCY RATES

Table with columns: Bank, Rate. Lists various currency rates and their descriptions.

The Low & Bonar Group Limited. Issue of up to £2,459,691 12 1/2 per cent Convertible Unsecured Loan Stock 1982. The Council of The Stock Exchange has admitted the above Loan Stock to the Official List...



# John Bull and the china shops

BY DAVID FREUD

POTTERY was one of the earliest signs of civilisation. With textiles it is also among the first modern industries that most developing countries strive to establish. Yet in complete contrast to the textile manufacturers in the U.K., who have been retreating before foreign cheap-labour competition for decades, the British pottery industry has moved from strength to strength in the last 50 years.

The industry is based in Stoke on Trent in North Staffordshire, where about 80 per cent of total production is concentrated. The scientists—Arnold Bennett left out Fenton—are among the most unworldly-looking areas in the country. Yet more than 50 per cent of Stoke's pottery production is for foreign consumption—a proportion believed to exceed that of every other industry except South Wales.

This high level of exports is not a new phenomenon. Mr. Sam Jerrett, the director of the British Ceramic Manufacturers Federation, claims that the proportion has never dropped below 40 per cent in the past 25 years.

Over the same period, growth has been steady. There have been few years in which overall output did not increase. Dominating the industry with 60 per cent of sales is the tableware sector. Its strength—especially in exports—has disguised the poorer performance in the last few years of in utilitarian ware and tiles.

Total exports of tableware last year totalled £50.5m, about 60 per cent of production. In direct exports, purchases by tourists, are estimated to amount to as much as another 20 per cent. Imports by contrast are worth only £2m. Exports this year look set to exceed the £100m mark, easily by the first five months of the year. They were £45.2m compared with £31.6m in the same period of 1976. In volume terms the increase was 11 per cent.

The spectacular rise in ex-

ports in the last 18 months is attributed by Mr. Jerrett to the weakness of sterling. Yet thorough marketing effort was required to capitalise on the competitively-priced currency.

British china is a quality product. The leading product—bone china, so-called because it is at least 35 per cent calcium phosphate or calcined bone—is technically a difficult product to make. Few foreign competitors try, although Korea, Japan and Taiwan produce some. Helped by the mystique that attaches to anything unique, bone china manufacturers claim their product is whiter and better than the foreign equivalent, porcelain. More important, many consumers agree with them and are prepared to pay the extra with cash.

Using bone china as their benchmark, British manufacturers have been able to exploit their penetration of foreign markets by exporting earthenware and stone-ware products, even in the case of Royal Doulton Tableware, developing non-bone line china lines on the continental model.

It is not an industry in which long production runs are common. The manufacturers break each foreign market down into a number of sectors and aim to produce ware planned specifically to appeal to them. This is not an approach designed to allow standardisation. No fewer than 50,000 different items are produced by Royal Doulton, which divides 65 per cent of the industry's turnover fairly evenly with Wedgwood.

Mr. Richard Bailey, chairman of Royal Doulton, said: "We define ourselves as a marketing organisation. Our job is to identify the needs of each of our world markets and satisfy those needs. Success in building our position in the last 25 years has been due to our use of sophisticated but extremely effective design research techniques to predetermine the market receptivity to new designs before they are intrin-

duced."

With such great variety, automation has inevitable limits. The British Ceramic Research Association, whose work is closely tied to the needs of the industry, developed machinery for producing spray dried bodies. The clay dust as opposed to wet clay dust allowed better hatch control. However, the industry has not taken up the idea because its short runs would make it uneconomic. The West German industry, which is less market-orientated and has longer production runs, is now investigating the process.

According to Mr. Bailey, "We've automated those parts of the production process which represent the donkey work. The skills, artistry and craftsmanship are preserved because they represent the quality built into the product." At Wedgwood's main factory at Barlaston, this process has allowed output per person to double in the last 21 years.

The industry's performance would have been impossible without its rapid rationalisation over the last 15 years. The number of companies has declined from about 200 to 10 big ones. The process has brought no closures, although only three new plants have been built.

Mr. Jerrett said: "We saw the need for rationalisation in plenty of time and I cannot believe we could have existed without it." The main effect has been to concentrate overseas marketing effort. Mr. Peter Williams, the deputy chairman of Wedgwood, explained how Coalport, hardly known in the U.S. before Wedgwood took the company over, was now a major sales success in that country.

"It got its strength from being part of a worldwide group. All we did was to put it on the shelves. Now it has its own sales division."

The effect of rationalisation in Wedgwood's case can be seen by comparing output in 1976 with the consistent figures and



Sir Arthur Bryan, chairman of the Wedgwood Group watches the hand-painting process at the company's Barlaston Pottery.

companies that now make up Wedgwood probably had a turnover of £4m. This year turnover is projected at £75m. Inflation hardly makes a dent on the contrast.

Mr. Bailey makes a similar claim for the Doulton rationalisation, which brought together 21 separate factories employing 10,000. "I'm quite convinced that bringing them together into a single group has had an enormous influence on developing their full potential through the very much stronger presence that each can have under the overall marketing operation."

The two big companies see marketing as the key, and both have built up powerful sales forces or marketing companies abroad. The industry's success in West Germany is a case in point. Sales have climbed from the £60,000 quota of 1959 to nearly £9m last year. This has been done by developing a new market in sales through retail chains. The German industry's sales have through this period been largely confined to specialist shops.

North America is by far the most important market, taking £18.5m in U.K. exports last year, almost half the total.

Investment levels are high. Royal Doulton Tableware, which completed reorganisation last year, is plunging back £5m this year when turnover is expected to be up in real terms on last year's £59m. Wedgwood, employing around 10,000—like Doulton—reinvests about £4m each year, on top of a £74m, 21-year expansion programme which began 12 months ago.

Tableware manufacturers have been able to develop a world market in which their structure—many small factories, rather than a few major centres—are a positive advantage, allowing flexibility and the shorter production runs required. Added to that are an expert and dedicated workforce and long-established overseas sales operations. The final element is a reputation—or a series of reputations—that has taken decades of patience to develop.

## A FINANCIAL TIMES SURVEY THE TOY INDUSTRY OCTOBER 6 1977

The Financial Times is preparing to publish a survey on the toy industry in its edition of October 6, 1977. The proposed editorial coverage will include an examination of the industry's current situation and a discussion of its likely future development.

Individual articles will be devoted to the main sectors making up the industry. The main headings of the proposed editorial synopsis are set out below.

**INTRODUCTION** The last decade has been a period of problems and of consolidation for United Kingdom toy companies: old-established companies have collapsed, leaving a relatively small number of concerns to dominate the market. Abroad, big companies have also experienced difficulties. Nevertheless, sales have been continuing at healthy levels.

**THE COMPANIES** Who are today's giants in the toy industry? What is the likely future development of the industry's structure?

**MARKET SECTORS** A series of short articles will examine the following various sectors which make up the toy industry:

- Wheeled toys
- Dolls
- Pre-school toys
- Stuffed toys
- Kits
- Diecast toys
- Games
- Electronic toys
- Executive toys
- Others

**RETAILERS** The number of retailers has fallen but Britain still has some 4,500 toy shops: mail order buying accounts for about 20 per cent of the market.

**TOY FAIRS** The toy fairs are traditionally regarded as critical for the launching of new products: but in the United States the fairs have become steadily less important. What is the trend in Britain?

**INTERNATIONAL TRADE** A high proportion of the British industry's production is exported: licensing arrangements are important and the sale overseas of obsolete manufacturing equipment is also proving profitable.

**THE UNITED STATES** The United States toy market this year is expected to amount to \$3.6bn: a significant proportion of this total will be spent on British toys.

**TOYS IN THE SALEROOM** There is a growing interest in old toys among collectors—an interest illustrated by the recent sale of the Dunbee-Cambex-Marx collection of toys discovered in one of its United States factories.

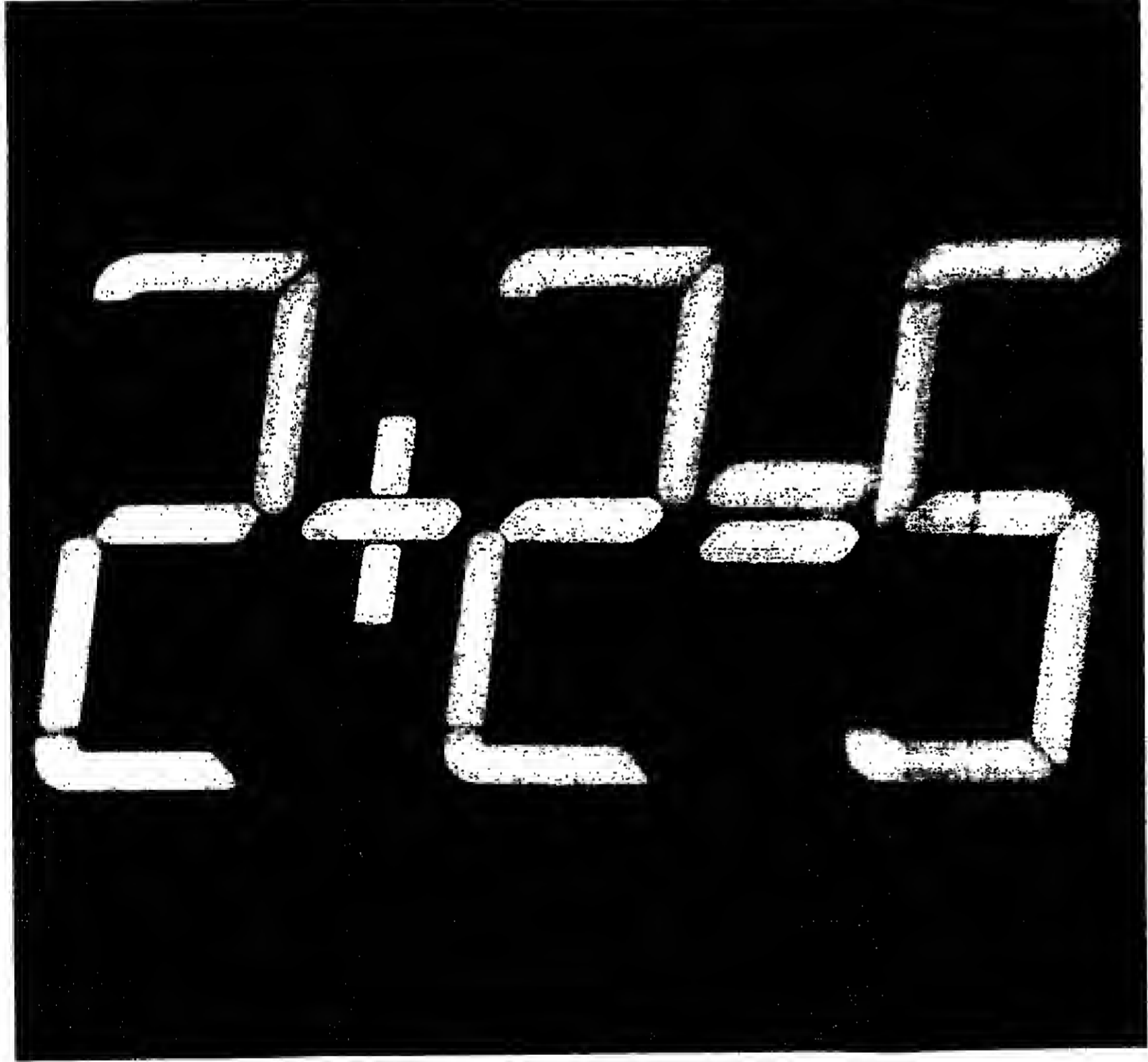
The proposed publication date is October 6 1977. For full details of the proposed editorial synopsis and advertising rates, contact Anthony Brown, Financial Times, Bracken House, 10 Cannon Street, London EC4P 4BY. Tel: 01-248 8000, ext. 245. Telex: 885033 FINTIM G.

**FINANCIAL TIMES**  
EUROPE'S BUSINESS NEWSPAPER

The content and publication dates of surveys in the Financial Times are subject to change at the discretion of the Editor.

ASIAS SHARE

48	35	42
49	36	43
50	37	44
51	38	45
52	39	46
53	40	47
54	41	48
55	42	49
56	43	50
57	44	51
58	45	52
59	46	53
60	47	54
61	48	55
62	49	56
63	50	57
64	51	58
65	52	59
66	53	60
67	54	61
68	55	62
69	56	63
70	57	64
71	58	65
72	59	66
73	60	67
74	61	68
75	62	69
76	63	70
77	64	71
78	65	72
79	66	73
80	67	74
81	68	75
82	69	76
83	70	77
84	71	78
85	72	79
86	73	80
87	74	81
88	75	82
89	76	83
90	77	84
91	78	85
92	79	86
93	80	87
94	81	88
95	82	89
96	83	90
97	84	91
98	85	92
99	86	93
100	87	94



**Sometimes, it's the only way to account for success.**

Sometimes, when you add one company to another, you simply get the sum of their parts.

Sometimes, on the other hand, you get more. You get shared management skills, more efficient administration, and a growing reputation where it matters. You get, in a word, success.

That's how the Alexander Howden Group has grown. We now own Insurance and Reinsurance Brokers, Underwriting Agencies and Insurance Companies. Some we developed, some we acquired.

But we've seen all of them grow; and we've seen the Group more than double its earnings per share and its profits in the last four years.

And today, we're one of the largest—and still one of the fastest-growing—insurance groups in Britain. It's a success we think we've earned.



**Alexander Howden Group Limited**  
22 Billiter Street, London EC3M 2SA. Telephone: 01-488 0808. Telex: 882171.

Handwritten Arabic text: "الله اعلم" (Allah knows best)

## History TODAY

Edited by Peter Quennell and Alan Hodge

The September issue includes:

**NANA SAHIB AT CAWNPORE, 1857**  
by Christopher Hibberd

The massacre at Cawnpore was one of the events in the India Mutiny not expected by benevolent British Commanders.

**MATTEO RICCI IN CHINA, 1583-1610**  
by Nora G. Buckle

Father Ricci spent many years on his mission near Canton but eventually his skills in mathematics and astronomy were welcomed in Peking.

**THE STRAND BLOCK OF SOMERSET HOUSE, 1780-1836: Part II** by Sonia and Vivian Lipman

Besides the Royal Academy, the building housed the Royal Society and the Society of Antiquaries.

**THE BRIGHTON CHAIN PIER** by L. W. Cowie

For seventy years a feature of the fashionable resort on the English South coast.

**COBBETT'S VIEWS ON SCHOOLS**  
by Molly Townsen

Cobbett himself was largely self-educated, and contemporary schooling he regarded as 'a melancholy thing to behold'

**THE LAVALLETT AFFAIR, 1815**  
by Michael Glove

Rescuing a victim of French vengeance.

Now on sale 50p. Annual Subscription £6.70 (U.S.\$16.00) from Bracken House, Cannon Street, London EC4P 4BY



FINANCIAL TIMES  
E TOY INNOVATIONS  
OCTOBER 6 1977

# SEAS MARKETS

## S. money supply move anticipated

On Friday the 64-74 on Thursday and Friday last week was less than expected since the market had anticipated a rise of an eighth on Friday. The market fell back on Friday, but the market was merely a reflection of the money supply move which was expected to be a week-by-week basis. Even if it does nothing else, this analysis would explain why the bond markets are reacting so much more sharply to the weekly U.S. money supply figures than earlier this year.

Last week's rise in the interest rates have pushed the differential between bond yields and deposit interest rates to a level which may well regard as the limit for a large new issue of calendar. At the beginning of the supply above the differential has been reflected in bond yields to a level which is higher than the dollar rate, the differential has been reflected in the last week's supply stays one point.

The sharp rise in inter-bank saw some pretty rates last Thursday has put pressure on the United States Treasury to announce the six two-tranche deal, announced

and 7.55 being offered on the OKB five-year issue. The successful placement of the Citicorp issue would seem to depend on two main factors. One is the likelihood that Citicorp like OKB before it is exploiting a fault in the market mechanism which either had not existed before or which no one had tried to exploit before. The fault is the lack of arbitrage between the money markets and the bond markets at intermediate maturities.

One institution was arguing on Friday that the reason Citicorp is able to offer less on bonds than

an inter-bank deposit or certificate of deposit is that bond investors for investment managers do not look on money market instruments as potential investments.

Another aspect of the same fault is that Citicorp issuing bonds is regarded as that rare investment opportunity in Europe, a triple-A rated U.S. company which is offering money market instruments in the special of denomination—\$1,000 in the case of bonds and anything from \$25,000 upwards in the case of the money markets.

The other factor which may be behind the successful placement is that the de facto yield to initial investors may be much higher than the coupon because the issuing syndicate is giving away a lot of fees.

If one assumes that the full fees are being given away on a par pricing—one percentage point in the case of the three year notes and 1% in the case of the four-year notes then this would raise the yields in 7.13 and 7.34 respectively.

Among the issues expected quite soon to come in London dollars for the American Hospital Supply and one in U.S. dollars for Tate and Lyle.

### BONDTRADE INDEX

	1977	1977	1977	1977
	Sept. 23	Sept. 16	High	Low
Medium term	102.57	102.64	102.68	102.39
Long term	96.00	96.07	96.27	94.78
Convertible	109.16	110.19	111.22	107.62

### EUROBOND TURNOVER

(Nominal value Sm.)

	U.S. \$	Other
	Last week	Previous week
Cedel	530.6	1,824.4
Euroclear	1,356.0	2,286.7

## Indices

### RK-DOW JONES

Sept. 23	Sept. 22	Sept. 21	Sept. 20	Sept. 19	1977	1977	1977	1977
High	Low	High	Low	High	Low	High	Low	High
158.14	158.06	157.78	157.52	157.25	157.10	157.00	156.90	156.80

### Y. E. Z. ALL COMMON

Sept. 23	Sept. 22	Sept. 21	Sept. 20	Sept. 19	1977	1977	1977	1977
High	Low	High	Low	High	Low	High	Low	High
22.87	22.84	22.81	22.78	22.75	22.70	22.65	22.60	22.55

### GERMANY

Sept. 23	Sept. 22	Sept. 21	Sept. 20	Sept. 19	1977	1977	1977	1977
High	Low	High	Low	High	Low	High	Low	High
185.5	185.0	184.5	184.0	183.5	183.0	182.5	182.0	181.5

### AUSTRALIA

Sept. 23	Sept. 22	Sept. 21	Sept. 20	Sept. 19	1977	1977	1977	1977
High	Low	High	Low	High	Low	High	Low	High
100.0	99.5	99.0	98.5	98.0	97.5	97.0	96.5	96.0

## SEAS SHARE INFORMATION

Stock	1977	1977	1977	1977	1977	1977	1977	1977
High	Low	High	Low	High	Low	High	Low	High
Admiral	10.5	10.0	9.5	9.0	8.5	8.0	7.5	7.0
Alm Invest	12.5	12.0	11.5	11.0	10.5	10.0	9.5	9.0
Alm Invest	13.5	13.0	12.5	12.0	11.5	11.0	10.5	10.0
Alm Invest	14.5	14.0	13.5	13.0	12.5	12.0	11.5	11.0
Alm Invest	15.5	15.0	14.5	14.0	13.5	13.0	12.5	12.0
Alm Invest	16.5	16.0	15.5	15.0	14.5	14.0	13.5	13.0
Alm Invest	17.5	17.0	16.5	16.0	15.5	15.0	14.5	14.0
Alm Invest	18.5	18.0	17.5	17.0	16.5	16.0	15.5	15.0
Alm Invest	19.5	19.0	18.5	18.0	17.5	17.0	16.5	16.0
Alm Invest	20.5	20.0	19.5	19.0	18.5	18.0	17.5	17.0
Alm Invest	21.5	21.0	20.5	20.0	19.5	19.0	18.5	18.0
Alm Invest	22.5	22.0	21.5	21.0	20.5	20.0	19.5	19.0
Alm Invest	23.5	23.0	22.5	22.0	21.5	21.0	20.5	20.0
Alm Invest	24.5	24.0	23.5	23.0	22.5	22.0	21.5	21.0
Alm Invest	25.5	25.0	24.5	24.0	23.5	23.0	22.5	22.0
Alm Invest	26.5	26.0	25.5	25.0	24.5	24.0	23.5	23.0
Alm Invest	27.5	27.0	26.5	26.0	25.5	25.0	24.5	24.0
Alm Invest	28.5	28.0	27.5	27.0	26.5	26.0	25.5	25.0
Alm Invest	29.5	29.0	28.5	28.0	27.5	27.0	26.5	26.0
Alm Invest	30.5	30.0	29.5	29.0	28.5	28.0	27.5	27.0
Alm Invest	31.5	31.0	30.5	30.0	29.5	29.0	28.5	28.0
Alm Invest	32.5	32.0	31.5	31.0	30.5	30.0	29.5	29.0
Alm Invest	33.5	33.0	32.5	32.0	31.5	31.0	30.5	30.0
Alm Invest	34.5	34.0	33.5	33.0	32.5	32.0	31.5	31.0
Alm Invest	35.5	35.0	34.5	34.0	33.5	33.0	32.5	32.0
Alm Invest	36.5	36.0	35.5	35.0	34.5	34.0	33.5	33.0
Alm Invest	37.5	37.0	36.5	36.0	35.5	35.0	34.5	34.0
Alm Invest	38.5	38.0	37.5	37.0	36.5	36.0	35.5	35.0
Alm Invest	39.5	39.0	38.5	38.0	37.5	37.0	36.5	36.0
Alm Invest	40.5	40.0	39.5	39.0	38.5	38.0	37.5	37.0
Alm Invest	41.5	41.0	40.5	40.0	39.5	39.0	38.5	38.0
Alm Invest	42.5	42.0	41.5	41.0	40.5	40.0	39.5	39.0
Alm Invest	43.5	43.0	42.5	42.0	41.5	41.0	40.5	40.0
Alm Invest	44.5	44.0	43.5	43.0	42.5	42.0	41.5	41.0
Alm Invest	45.5	45.0	44.5	44.0	43.5	43.0	42.5	42.0
Alm Invest	46.5	46.0	45.5	45.0	44.5	44.0	43.5	43.0
Alm Invest	47.5	47.0	46.5	46.0	45.5	45.0	44.5	44.0
Alm Invest	48.5	48.0	47.5	47.0	46.5	46.0	45.5	45.0
Alm Invest	49.5	49.0	48.5	48.0	47.5	47.0	46.5	46.0
Alm Invest	50.5	50.0	49.5	49.0	48.5	48.0	47.5	47.0
Alm Invest	51.5	51.0	50.5	50.0	49.5	49.0	48.5	48.0
Alm Invest	52.5	52.0	51.5	51.0	50.5	50.0	49.5	49.0
Alm Invest	53.5	53.0	52.5	52.0	51.5	51.0	50.5	50.0
Alm Invest	54.5	54.0	53.5	53.0	52.5	52.0	51.5	51.0
Alm Invest	55.5	55.0	54.5	54.0	53.5	53.0	52.5	52.0
Alm Invest	56.5	56.0	55.5	55.0	54.5	54.0	53.5	53.0
Alm Invest	57.5	57.0	56.5	56.0	55.5	55.0	54.5	54.0
Alm Invest	58.5	58.0	57.5	57.0	56.5	56.0	55.5	55.0
Alm Invest	59.5	59.0	58.5	58.0	57.5	57.0	56.5	56.0
Alm Invest	60.5	60.0	59.5	59.0	58.5	58.0	57.5	57.0
Alm Invest	61.5	61.0	60.5	60.0	59.5	59.0	58.5	58.0
Alm Invest	62.5	62.0	61.5	61.0	60.5	60.0	59.5	59.0
Alm Invest	63.5	63.0	62.5	62.0	61.5	61.0	60.5	60.0
Alm Invest	64.5	64.0	63.5	63.0	62.5	62.0	61.5	61.0
Alm Invest	65.5	65.0	64.5	64.0	63.5	63.0	62.5	62.0
Alm Invest	66.5	66.0	65.5	65.0	64.5	64.0	63.5	63.0
Alm Invest	67.5	67.0	66.5	66.0	65.5	65.0	64.5	64.0
Alm Invest	68.5	68.0	67.5	67.0	66.5	66.0	65.5	65.0
Alm Invest	69.5	69.0	68.5	68.0	67.5	67.0	66.5	66.0
Alm Invest	70.5	70.0	69.5	69.0	68.5	68.0	67.5	67.0
Alm Invest	71.5	71.0	70.5	70.0	69.5	69.0	68.5	68.0
Alm Invest	72.5	72.0	71.5	71.0	70.5	70.0	69.5	69.0
Alm Invest	73.5	73.0	72.5	72.0	71.5	71.0	70.5	70.0
Alm Invest	74.5	74.0	73.5	73.0	72.5	72.0	71.5	71.0
Alm Invest	75.5	75.0	74.5	74.0	73.5	73.0	72.5	72.0
Alm Invest	76.5	76.0	75.5	75.0	74.5	74.0	73.5	73.0
Alm Invest	77.5	77.0	76.5	76.0	75.5	75.0	74.5	74.0
Alm Invest	78.5	78.0	77.5	77.0	76.5	76.0	75.5	75.0
Alm Invest	79.5	79.0	78.5	78.0	77.5	77.0	76.5	76.0
Alm Invest	80.5	80.0	79.5	79.0	78.5	78.0	77.5	77.0
Alm Invest	81.5	81.0	80.5	80.0	79.5	79.0	78.5	78.0
Alm Invest	82.5	82.0	81.5	81.0	80.5	80.0	79.5	79.0
Alm Invest	83.5	83.0	82.5	82.0	81.5	81.0	80.5	80.0
Alm Invest	84.5	84.0	83.5	83.0	82.5	82.0	81.5	81.0
Alm Invest	85.5	85.0	84.5	84.0	83.5	83.0	82.5	82.0
Alm Invest	86.5	86.0	85.5	85.0	84.5	84.0	83.5	83.0
Alm Invest	87.5	87.0	86.5	86.0	85.5	85.0	84.5	84.0
Alm Invest	88.5	88.0	87.5	87.0	86.5	86.0	85.5	85.0
Alm Invest	89.5	89.0	88.5	88.0	87.5	87.0	86.5	86.0
Alm Invest	90.5	90.0	89.5	89.0	88.5	88.0	87.5	87.0
Alm Invest	91.5	91.0	90.5	90.0	89.5	89.0	88.5	88.0
Alm Invest	92.5	92.0	91.5	91.0	90.5	90.0	89.5	89.0
Alm Invest	93.5	93.0	92.5	92.0	91.5	91.0	90.5	90.0
Alm Invest	94.5	94.0	93.5	93.0	92.5	92.0	91.5	91.0
Alm Invest	95.5	95.0	94.5	94.0	93.5	93.0	92.5	92.0
Alm Invest	96.5	96.0	95.5	95.0	94.5	94.0	93.5	93.0
Alm Invest	97.5	97.0	96.5	96.0	95.5	95.0	94.5	94.0
Alm Invest	98.5	98.0	97.5	97.0	96.5	96.0	95.5	95.0
Alm Invest	99.5	99.0	98.5	98.0	97.5	97.0	96.5	96.0
Alm Invest	100.5	100.0	99.5	99.0	98.5	98.0	97.5	97.0

### EUROBOND TURNOVER

(Nominal value Sm.)

	U.S. \$	Other
	Last week	Previous week
Cedel	530.6	1,824.4
Euroclear	1,356.0	2,286.7

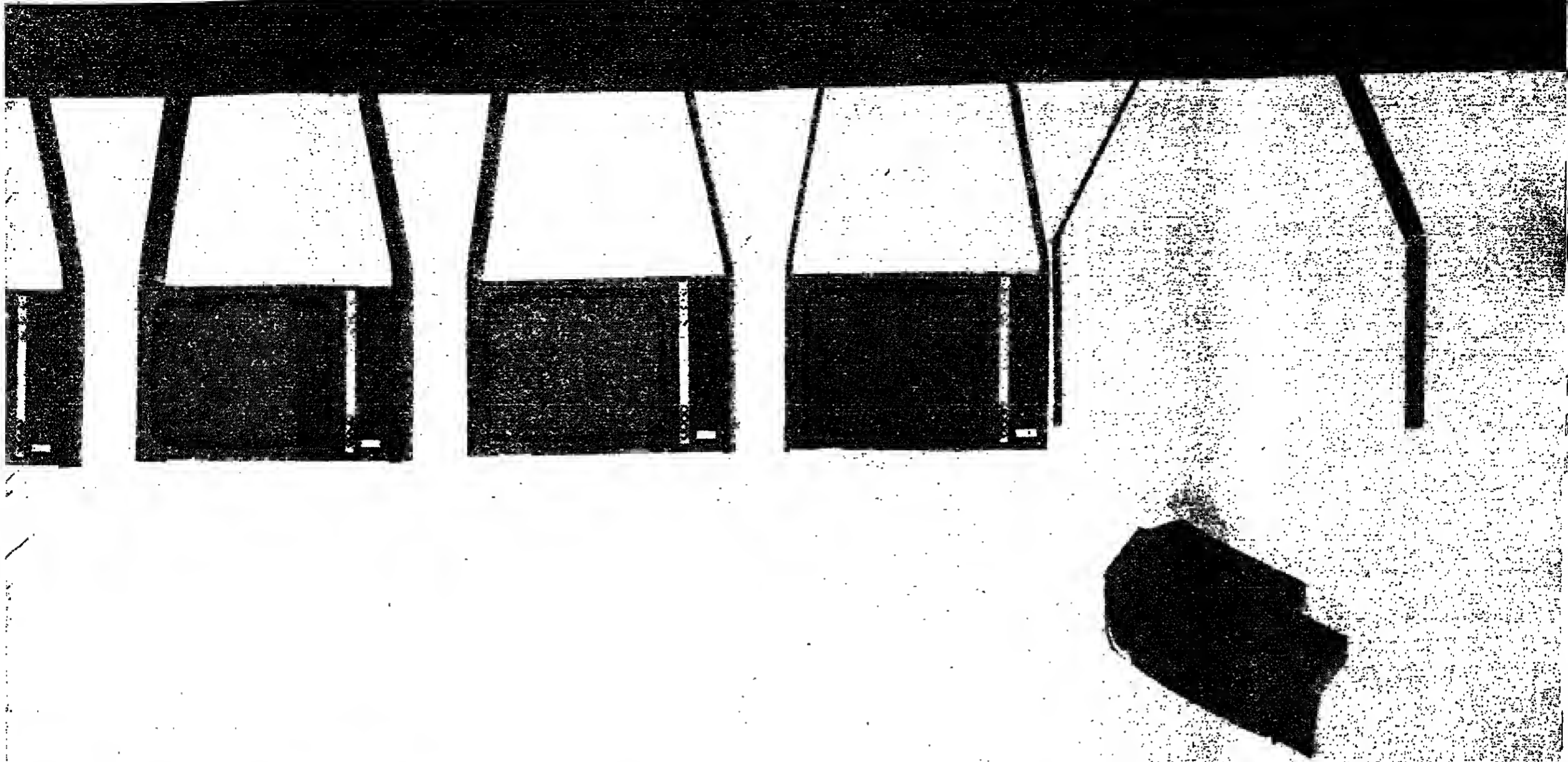
### AMSTERDAM

Sept. 23	Sept. 22	Sept. 21	Sept. 20	Sept. 19	1977	1977	1977	1977
High	Low	High	Low	High	Low	High	Low	High
100.0	99.5	99.0	98.5	98.0	97.5	97.0	96.5	96.0

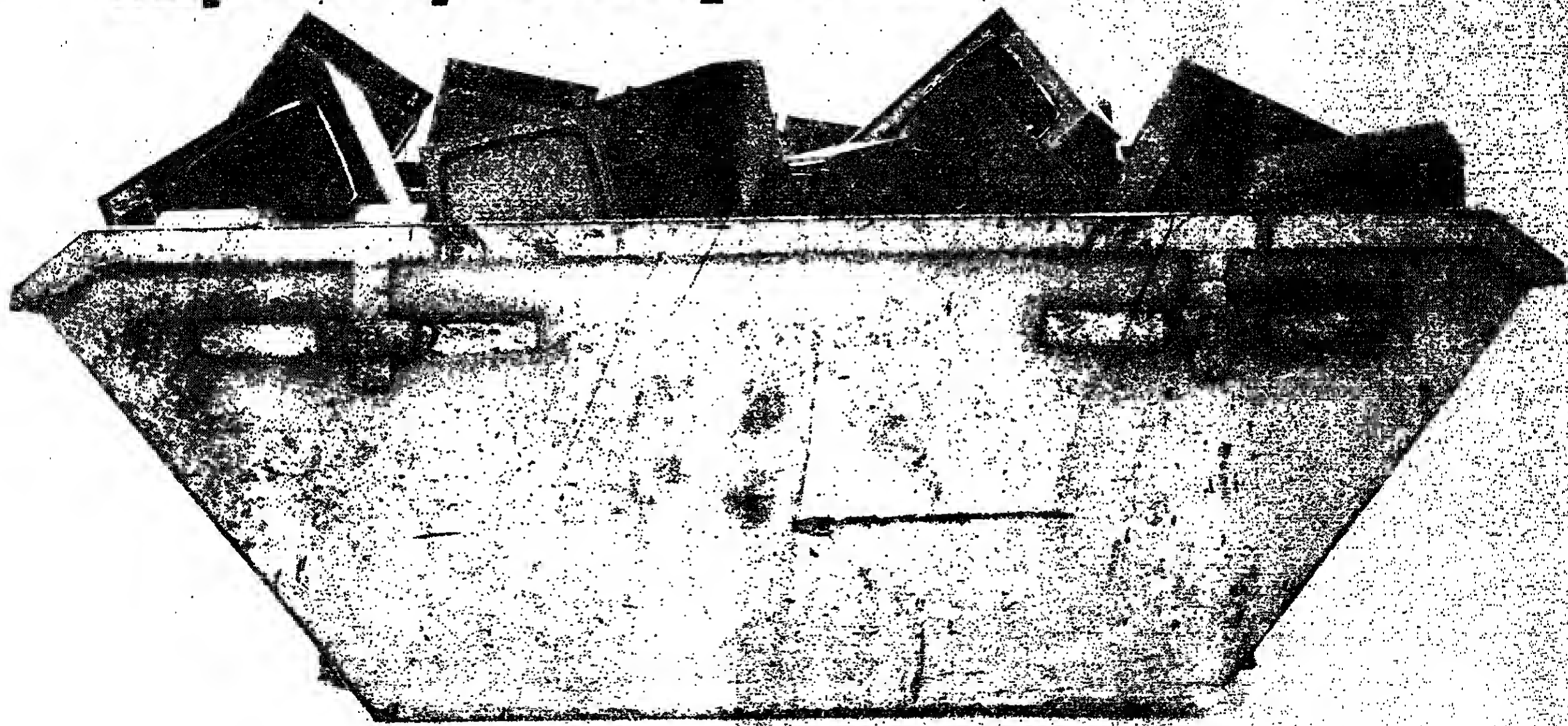
### TOKYO

Sept. 23	Sept. 22
----------	----------





# Instead of throwing money away on wasted energy why don't you scrap all tomorrow's output?



Go on, don't sit there thinking about all your difficult deadlines, your crippling production costs, your carefully ekeed-out profit margins. Be destructive.

We've got to be kidding? OK, but what about the money you're wantonly chucking away on energy bills?

Most small to medium size companies in Britain are wasting between 10% and 15% all the time without even realising it. On heating, lighting and power.

Which means that if your fuel bills are £10,000 per annum, that's £1,500 wasted. If they're as high as £1 million, that waste could be as high as £150,000.

Right, how can you stop it? Use the coupon to send off for our wide range of energy saving technical booklets. They're free and cover many aspects of

industrial energy loss. Tick the ones you need.

But most important, use the coupon to arrange for an Energy Survey. We'll send you a list of independent consultants. The one you choose will spend one day on your premises evaluating your specific areas of energy wastage.

It'll cost you a modest fee, up to £60 of it now being paid by us.

And when your consultant's report comes in, it should give you a detailed breakdown of your major energy losses. In one recent report, for instance, it was found that the mid-morning electricity peak demand in one factory wasn't due to a new milling machine, but to the profusion of office kettles.

In any event, with the money you can save, next year's production could reach an all time high.

To: Department of Energy, Free Publications, P.O. Box 702, London SW208SZ.

ENERGY SURVEY SCHEME: Lendlet and/or Consultants

FUEL EFFICIENCY BOOKLETS:

1. Flow diagrams	<input type="checkbox"/>	6. Flash steam and vapour recovery	<input type="checkbox"/>
2. The sensible use of latent heat	<input type="checkbox"/>	7. Degree days	<input type="checkbox"/>
3. Utilising gas burning processes and heat	<input type="checkbox"/>	8. The economic thickness of insulation for hot pipes	<input type="checkbox"/>
4. Compressed air and storage	<input type="checkbox"/>	9. How to make the best use of condensate	<input type="checkbox"/>
5. Steam traps and fuel valves	<input type="checkbox"/>	10. Controls and energy savings	<input type="checkbox"/>

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Position: \_\_\_\_\_

SAVE IT

Today's Nation  
Britain's devel  
the need for ce

Expect

Tran  
dis

Impact



# FINANCIAL TIMES SURVEY

Monday September 26 1977

## Managing Energy

Today's National Energy Managers' Conference should mark an important point in Britain's developing energy policies. It should indicate the growing emphasis on the need for conservation, even though the country is close to fuel self-sufficiency.

beyond the theoretical 10 per cent. cuts.

This underlines another reason why today's conference is important. It recognises the role that can, and must be played by managers given the responsibility of curbing the use of irreplaceable fossil fuels. Some 700 delegates from industry, commerce and the public sector will almost certainly be told that over the next 25 years or so energy conservation has a more important role to play than the development of alternative energy sources.

To quote Dr. Cunningham again, energy conservation offered more potential for bridging the expected energy gap than all the alternative sources of energy put together. Conservation would save the country in the equivalent of 2bn. a year in fuel costs by the year 2000, he said. This was using proven conservation technology. "The alternative sources" of energy are as yet unproven technically; we do not yet know how economic they will turn out to be.

The Energy Department has recently come in for some sharp criticism by the Select Committee on Science and Technology over the Government's attitude to alternative energy. The Committee, reporting earlier this month, found that the Department had been too complacent about developing these new forms of energy that Government spending on research and development had been "grossly inadequate", and that the attitude in tidal power had been "excessively timid".

### Expected

Mr. Wedgwood Benn was forced to concede that the Government may not have achieved the correct balance between investment in fossil and nuclear fuels, alternative energy and conservation. The way in which the Government will allocate resources is likely to be outlined in the keenly-awaited Energy Green Paper which is expected to be passed to the new Energy Commission for consideration sometime to November.

This Survey coincides with the Department of Energy's one-day National Energy Managers' Conference at the National Exhibition Centre, Birmingham.

If the Government can be criticised for complacency, then so must many large companies. It is true that in a number of cases the top management of firms have taken a constructive and deliberate approach to energy conservation. Companies like Courtaulds, Marks and Spencer, and Esso have had direction from the top that energy saving is a vital part of cost control. Or, to put it more positively, energy conservation is a means of generating extra cash flows.

Take Courtaulds. In the two years to January this year it had £10.5m. more cash to spend as a result of its energy conservation programme. That was the amount that would have been spent on fuel and power if, in 1974, the Board had not set an energy saving target of 10 per cent. There are many other examples that can be quoted: Vauxhall, in mention just one, spent £5,000 on time clocks for heating, ventilation and lighting and saved £38,000 in one year.

It is estimated that last year domestic, commercial and industrial users of energy saved well over £500m. worth of fuel. This means that the Government's "Save It" campaign may have been instrumental in reducing energy demand by some 8 to 9 per cent, as against the 2 per cent saving in 1974. Economists argue over how much of that saving should be ascribed to public spirited conservation. Higher fuel prices have clearly helped to dampen demand, as they are likely to do in the future.

There are many in the energy industry who expect fuel prices to double over the next 20 years. It is even being suggested by the Millbank headquarters of the Energy Department that prices may treble by the end of the century. And it must be remembered that these forecasts are made on the basis that the increases will be in real terms. Energy self-sufficiency which

financial help towards the cost of hiring energy consultants; the Department of Industry's energy audit and energy thrift schemes; and the Government's energy technology support unit. Indeed the flow of technical information may well be increased.

There must be a question mark over the effectiveness of the energy saving loan scheme, however. This was introduced as a safety net to provide companies with loans if they were unable to raise cash for conservation measures elsewhere.

Very few companies have taken advantage of the loan scheme, mainly because it offers no carrots. The interest rate matches commercial rates. Industry has generally taken the attitude that if they could not raise the money on the market, or generate the capital internally, the job was not worth doing.

Much more could be done to encourage energy conservation, towards making amend-

### BOILER PLANT ENERGY TO THE YEAR 2000. A FREE COLOUR PUBLICATION COVERING OIL, GAS, COAL, ELECTRIC & WASTE FIRING

by: Parkinson Cowan GWP Ltd  
P.O. Box 4  
Dudley, West Midlands

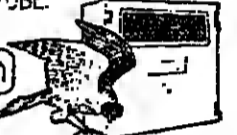
Send for your copy now

### When a careless 30 minutes could mean a costly 12 months electricity bill, you need Ferranti Digicon.

The Ferranti Digicon Maximum Demand Monitor enables you to make the best use of the energy available in each half hour demand period, with automatic load control if needed. Ferranti Digicon Monitors can cut the demand charge on your electricity bill by up to 20%. If your maximum demand is in the order of 1MW MVA you should recover your investment within 12 months.

Digicon keeps a hawk eye on electricity costs. Send for more details to Ferranti Limited, Instrument Department, Moson, Manchester M10 0BE. Tel: 061-681 2071. Telex: 667857

**FERRANTI digicon**  
Keeps a hawk eye on your costs



## HOW TO MANAGE A HIGHLY EFFICIENT FUEL EVEN MORE EFFICIENTLY

In the vital task of managing your organisation's energy usage, British Gas will almost certainly be able to help. The British Gas School of Fuel Management provides energy conservation courses for directors, executives, fuel managers, supervisory and service engineers and others in industry, commerce and public administration.

### SUBJECTS INCLUDE:

- \* World and U.K. energy resources
- \* Principles and financial implications of fuel management
- \* The energy audit
- \* Practical measures to increase fuel management efficiency
- \* Installation, operation and maintenance of modern fuel-using plant
- \* Standards and Codes of Practice
- \* Developments in combustion engineering

The School is equipped with workshops and laboratories, libraries, lecture rooms and a theatre—and is staffed by experts.

It is located at Solihull, near Birmingham, in the industrial heart of Britain, adjoining the British Gas Midlands Research Station, which specialises in research and development to improve the industrial utilization of gas.

Recent achievements at the research station include a self-recuperative burner (capable of reducing fuel consumption by up to 50%), rapid heating machines, and vat and tank heating systems making possible significant energy and cost reductions across a whole range of industrial processes.

The 12 regions of British Gas also offer a Technical Consultancy Service to make sure industry gets the best from gas using equipment. The job of the Technical Consultancy Service Engineer is to check the plant thoroughly, look for ways to reduce your fuel bills, improve productivity and increase efficiency.

**BRITISH GAS**  
LEADERS IN FUEL MANAGEMENT

To: British Gas Technical Consultancy Service, 326 High Holborn, London, WC1V 7PT.

Please send me a brochure about the service and telephone my secretary for an appointment. I would also like details of the various fuel efficiency courses at the British Gas School of Fuel Management.

Name: \_\_\_\_\_ Address: \_\_\_\_\_

Company: \_\_\_\_\_

Position in Company: \_\_\_\_\_ Tel. No.: \_\_\_\_\_

## Transport and distribution

Despite the bad freight market, with a keel, second-hand tanker values have kept up reasonably well. Even though speculation is still unprofitable, the purchase market in August saw a number of good operable charter rates and below

A certain amount of activity for Norwegian account or contracting of tankers—particularly special purpose tankers—has been noted recently in the new building sector. This, says a leading Norwegian broker, must be seen in relation to a better expectation in the long term for tankers than for other types of vessels. But the broker gives a warning that some of the tanker projects are at a preliminary stage and there is a long way to go before finalisation of the deals.

The gas carrier trade is a very highly financed sector of the energy market and most contracts for the use of lpg and log (liquid petroleum gas and liquid natural gas) are arranged between governments and the carriers. Algeria is a case in point. Contracts are usually for an annual transport of gas regardless of the particular gas carriers involved.

But in the North Sea gas sector the U.K. and Norwegian governments are considering new gas-gathering schemes which will almost certainly add to the existing network of pipelines for natural gas supply. The impact on British and

Norwegian shipbuilding industries depressed by the shipping recession could be considerable. Last month British Shipbuilders were urged by the Shipbuilders Society to turn to production of gas pipelines for the North Sea where there is estimated to be a potential £2bn. worth of orders.

The Society, worried about the lack of shipbuilding orders, says that an estimated 800-mile network will be needed for the gas fields. The figure is based on a survey commissioned by the Department of Energy but it now appears that a more modest gas gathering scheme will be implemented.

Diversification into pipelines and building chemical plants for processing gas and oil could also provide jobs for the shipbuilding industry's workers. The gas pipeline industry has many prospects but it may be subject to hazards. The British Health and Safety Executive, for example, is to undertake a full hazard evaluation of Shell's proposed 120-mile natural gas liquids pipeline from St. Fergus to Fife.

The Grampian planning, property and development committee, with four North-East district councils, has objected to the pipeline which would carry Brent Field gas liquids to Shell's proposed complex at Mossnorrain in Fife.

The committee is concerned about the protected route of the pipeline, which would pass 1 mile from the northern end of the main runway at Aberdeen

Airport and only 30 yards from the Aberdeen suburb of Westhill.

At Mossnorrain Shell/Esso and Esso Chemical are seeking planning permission to build a gas liquids separation plant and an ethylene plant. Along with the associated storage and jetty facilities at nearby Braeford Bay, the project could cost in excess of £430m.

Esso Chemical is not yet committed firmly to building the ethane cracker but it needs to bring a new 500,000 tons a year ethylene plant on stream by the early 1980s and is finding the availability of ethane feedstocks from the North Sea an attractive reason for choosing Fife.

Earlier this year Sir Denis Rooke, chairman of British Gas said that he did not accept the alarmist stories about a vast energy gap in the 1990s. Dr. John Cunningham, Parliamentary Under-Secretary of State for Energy has said that the biggest challenge facing the gas industry must be the eventual and inevitable decline in natural gas supply and its replacement by synthetic natural gas (sng). British Gas, he says, is already well prepared for the development of an industry based on substitute natural gas.

"We are laying the foundations for the security of gas supply by developing the technologies which we may one day need to make substitute natural gas from coal or oil."

James McDonald



# MANAGING ENERGY II

# Oil and gas needs



## We saved...

### 377 million kilowatt hours

**Here's how:** The hundreds of buildings that wear Doulton-Madico Reflecto-Shield on their windows have already saved enough energy to light all the homes in a huge city like Leeds—for six months. That's a saving of 29 million gallons of crude oil—£9 million worth of precious energy. And climbing every year. Because instead of just talking about energy conservation—we're doing something about it. As the world's largest maker of solar control polyester films, we perfected a window-system that reduces solar heat gain through glass as much as 77 per cent. Results are instantaneous. Air conditioning effectiveness improves and operating costs are reduced as much as 40 per cent—with potential payback of investment in as little as two years. Reflecto-Shield has helped solve a wide range of air-conditioning and heating problems in office buildings, schools, factories, hospitals, hotels and public and private buildings throughout the world.

Madico, January 1977

I am interested in Doulton-Madico Films

Name \_\_\_\_\_  
 Title \_\_\_\_\_  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 Tel \_\_\_\_\_

**DOULTON GLASS INDUSTRIES LIMITED**  
 PARR ROAD HONEYPOT LANE  
 STANMORE HA7 1BR MIDDLESEX  
 TEL: 01-952 2300

A member of the Royal Doulton Group FT26

OIL AND GAS account for the majority of the energy used in the U.K. In line with other developed countries, Britain has taken full advantage of these flexible and easy-to-handle fuels.

The Government's Digest of U.K. Energy Statistics tells us that in terms of inland consumption of primary fuels, oil accounts for 40.7 per cent, of demand and natural gas 17.8 per cent. When considered on a heat supplied basis, oil and gas together meet 70 per cent of the requirements. Two-thirds of industry's energy consumption, again on a heat supplied basis, is met by oil and gas while transport—another important factor in industry's costs—relies almost entirely on oil products.

So much for consumption. On the other side of the coin we find that the whole of Britain's gas industry is now linked to North Sea fields. The country is self-sufficient in natural gas. And North Sea oil is flowing at an increasing rate so that by the end of next year it should be meeting two-thirds of domestic requirements and by late 1979 should be the equivalent of U.K. oil consumption.

In short, the picture of Britain's energy supply and demand balance is rosy. The net benefit of the offshore oil programme on the country's external payments should be as much as £7.5bn. in 1985 (at 1976 prices), according to the latest Treasury estimates. Within the next three or four years the balance of payments benefit arising from offshore gas-fields could be as much as £4bn. annually. On top of all this the total Government tax and royalty revenues from gas and oil production will rise to some £3.5bn. a year by the mid-1980s.

This attractive facade hides some dangerous pitfalls, however. No one can be certain how long this happy state of affairs will last. There is a real danger that the Government and energy users will be lulled into a false sense of security only to be rudely awakened by the sirens of an energy crisis. Only last week, the Department of Energy was criticised by the Select Committee on Science and Technology for being complacent towards the development of the alternative renewable forms of

energy. In turn the Department of Energy is stepping up its campaign to convince private, commercial and industrial interests to be more energy conscious.

But there is another cause for concern, particularly for industry, masked by the happy self-sufficiency statistics. Oil and gas prices, now at levels undreamed of five years ago, will continue to go up. North Sea production will not insulate U.K. consumers from the increases.

### Hazardous

Predicting the extent of future price rises is a hazardous business. It is partly dictated by world economic factors but, as past events have shown, political influences also have a bearing. Sheikh Ahmed Zaki Yamani, the Saudi Arabian oil minister, recently gave a fresh warning that oil supplies would continue to be used as an oil weapon. He apparently told Japanese politicians that Saudi Arabia would limit production to 8.5m. barrels, a move which could seriously disrupt the international supply of oil once economic growth resumes.

The two-tier oil pricing system, introduced by members of the Organisation of Petroleum Exporting Countries in January, came as a surprise to virtually everyone in the oil industry. Fortunately, the crude prices have been brought back into a uniform structure, roughly 10 per cent higher than last year. In recent months, however, slack demand and high stocks have resulted in some discounts being offered by oil producers.

It is on the cards that OPEC will implement another small price rise in January—a 5 per cent. increase is seen as likely by many observers. Although Saudi Arabia and the United Arab Emirates will probably restrain their calls for pricing restraint it is a fair bet that the majority of OPEC members will want to see some adjustment, particularly as they were dissuaded from imposing a 5 per cent. rise in July.

The Henley Centre for Forecasting recently published its own thoughts on how crude oil prices might rise over the next 14 years. Taking a base case of \$12.50 a barrel in 1976, the Centre forecasts that by the

### U.K. INDUSTRIAL ENERGY PRICE TRENDS

	Coal (1) (£ per ton)	Gas (2) (p per therm)	Fuel Oil (3) (£ per ton)	Electricity (4) (p per kWh)
1975	19.50	4.95	41.05	1.250
1976	22.70	7.80	47.40	1.468
1977	24.90	8.50	52.85	1.600
1978	27.70	9.50	57.60	1.774
1979	30.20	10.40	62.80	1.932
1980	32.50	11.30	67.50	2.000

- 1980-85  
 Average annual % increase 5.5 6.5 5 4.8
- Estimated from average pithead prices paid for average industrial grades of coal and using average transport costs.
  - Average cost per therm—it may not reflect marginal gas prices for consumers negotiating contracts or those on special tariffs.
  - Estimated delivered price for fuel oil to medium, large customers including rebates and taxes.
  - Average cost per kilowatt hour invoiced to large industrial customers.

Source: Henley Centre for Forecasting.

### POSTED PRICES FOR REFERENCE CRUDE OIL

	Increase %	Forecast Price Range \$ per barrel
1976	—	12.50
1977	6.7	13.25-13.38
1978	5-6.1	13.91-14.25
1979	6-8	14.75-15.39
1980	5-7	15.49-16.46
1981	4-6	16.10-17.45
1981-1986	3.7 per annum	20.00-23.13
1986-1991	0.5 per annum	31.88-28.13

Source: Henley Centre for Forecasting.

mid-1980s oil prices might be in the \$20 to \$23.13 a barrel range and by 1991 could be as much as \$21.8 to \$28.1 a barrel. These figures support the warning, made last week by Dr. John Cunningham, Parliamentary Under Secretary of State for Energy, "If fuel prices rise more rapidly than other costs, he said, "the case for spending on energy-saving is even stronger. All the indications point to such a rise in energy prices, perhaps a doubling in real terms by the end of the century."

It is worth remembering, in this context, that the high quality of most North Sea crude oils, together with their proximity to most Western markets, means that they can command a premium price of perhaps a dollar a barrel when set against the heavier crudes of the Middle East. This raises questions about the Government's plans for refining and marketing the U.K. crude. Oil companies are already snarling at the Department of Energy which has insisted that North Sea crude should not be sold under long-term contracts. This recent decision, which follows pressure from the British National Oil Corporation, is aimed at maintaining domestic supplies

when market conditions become tenuous, perhaps in the late 1980s or 1990s.

Secondly the Government is still insisting that the majority of North Sea crude should be refined in the U.K. Oil companies have argued that it would make more sense to use the lighter North Sea oil only in order to replace the imported light crude. In this way they would continue to import large amounts of cheaper heavier crude but export equally large volumes of more expensive, lighter crudes.

Last year exports accounted for one-third of North Sea oil production—exactly in line with declared Government policies. However, so far this year exports have crept up to about 40 per cent of output, a sign, perhaps, that the oil industry's arguments are being recognised in Whitehall? Not so, said Dr. Dickson Mabon, Minister of State for Energy. "We shall need a lot of convincing by the companies during our consultations of the benefits of the current levels of exports."

Other areas of Government policy which are likely to become clearer over the coming months include the attitude towards depletion controls. At one time it was thought that Britain would be a significant net exporter of North Sea crude in the mid-1980s. For a number of reasons, this does not now seem likely. Indeed, the Energy Department gives the impression it is happy to see offshore production remaining in balance with domestic demand for as long as possible. With this in mind, the Department has adopted a much more regulated approach to offshore licensing—basically on the basis of "little and often."

It is also likely to give the British National Oil Corporation a number of its own blocks so that any oil found can be kept for a time when it is needed in the national interest. This is already the case with British Gas, which has its own encouraging field—the Morecambe Field—in the Irish Sea. The Corporation has all the natural gas that it needs at the moment so it may well decide to sit on the field until supplies from the southern sector of the North Sea begin to tail off. On the other hand, it may bring

Morecambe on stream in a muted fashion in order to balance the distribution. All of the present offshore British Gas has just completed its £1bn development. Not only has it just started in the first test supplier from the northern sector of the North Sea. Test quantities of gas from the Anglo/N St. Fergus near Peterhead, Frigg Field began a week's contract should begin to reach its peak of about 100 million cubic feet a day in increasing the British supplies by over 100 million recent levels. With the Brent Field also stream in the next year, the Gas Corporation has been left with the prospect of finding customers.

### Contracts

Supply contracts recently been made by organisations as diverse as Wilson, Sons & Co., Wedge Royal Doulton, Brimble, it is selling on a basis that it is a price in the past year of existing customers their gas supply contract faced some hefty increases, rises of one per cent. In contract prices have been uncommon. That the price level should be market for other fuels, particularly gas, is a surprise. According to information from Services Energy for industry, previous gas prices have been a long way below price for competition. Even with recent price rises, gas remains a very attractive proposition for industry because of its flexibility in use. Interruption of supply has not been a problem for industry because of its ability to remain cheaper than fuel oil.

Roy F

# Coal production

THE CERTAINTY of all experts that the world is going to have to manage its available energy resources more carefully is having one positive effect in practical terms into a world renaissance of coal-mining. There is more than 600bn. tonnes of economically recoverable coal in known world deposits. It is enough to last the world for centuries if taken and used within a coherent pattern alongside other fuels; and if the work of exploitation and exploration continues in balance.

When the World Energy Conference in Istanbul in September considered all the world's resources of primary energy in a wide-ranging series of studies it was agreed that from the middle 1980s onwards much of the new world demand for fossil fuel will be met directly by coal—or indirectly through the production of coal in terms of liquid fuel. World coal demand is expected to increase from 1.5bn. tonnes by the year 2020, it will be between 4 and 6 times the current level. That represents a projected increase from just over 200bn. tonnes a year to nearly 800bn. tonnes a year. Output by the main coal producing nations is expected to go up as follows:

	1975 (millions of tonnes)	2020 (millions of tonnes)
Australia	89	300
Canada	23	280
China	349	1800
East Germany	120	155
India	73	500
Japan	19	20
Poland	181	280
South Africa	69	300
Britain	129	173
United States	381	2400
Russia	614	1800

As production rises the volume of coal trading round the world will grow until by early in the next century the combined international trade in coal and liquefied gas is expected to be running at about the same levels as international oil trading at the present time. But the World Energy Conference warned that expanding the world coal industry will not be easy because of the major decisions necessary on mining, investment and transportation. "Action must be taken now," the conference decided. The need is for governments and coal miners to take long-term decisions about the

the long-run to a piece of country which has, in the past, suffered the blight of industrial dereliction.

The NCB is planning to develop open-cast to some 15m. tonnes a year and the operation is already worth nearly £400m. a year to Britain in foreign exchange savings on energy.

So well has the technical development of the NCB proceeded since the energy crisis first erupted that the board and the Government are now planning for a continuing investment in the industry called Plan 2000. It involves a continuous £400m. a year programme to raise mining capacity in Britain to some 170m. tonnes a year by the year 2000.

But the industry has an Achilles Heel: that is the difficulty being experienced in achieving higher productivity from its 245,000 mining workforce. The industry has made a small operational surplus of £27m. in the last financial year. Sir Derek Ezra, chairman, warned recently that falling productivity could lead

Roy F

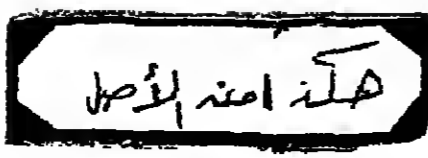


# ANSALDO

means today

- 5 factories, 10,000 employees
- 5 main areas
- machines and systems for power generation
- electrical equipment and systems for power distribution and industrial application
- equipment and systems for electric power transmission
- instrumentation and automatic control of industrial plants and processes
- control and electronic products for industry.

machines and systems for energy



## CRANFIELD SCHOOL OF MECHANICAL ENGINEERING

### MSc AND PhD DEGREES IN ENERGY STUDIES

Engineers, scientists and mathematicians are invited to apply to ENERGY and ENERGY RELATED courses at Cranfield School of Mechanical Engineering leading to Masters and Degrees. ONE YEAR M.Sc. courses are offered within with options in:

#### ENERGY CONSERVATION AND THE ENVIRONMENT

#### COMBUSTION TECHNOLOGY

#### GAS TURBINE TECHNOLOGY

A TWO YEAR M.Sc. PROGRAMME OF STUDY is available for applicants with the requisite ability and industrial or P.H.D. STUDENTS have the opportunity of continuing interesting programmes of research which reflect a link with industry enjoyed by the School. A complete range of test facilities is available in which the latest and experimental techniques are employed, and a income of the School from sponsored research is a quarter of a million pounds.

SHORT COURSES (3 days-3 weeks duration) are regularly throughout the year covering a wide range of engineering topics.

ACCOMMODATION: Two halls of residence are available on campus and provide study-bedroom accommodation, a block of flats as well as individual houses for married students.

Further particulars, including information on entry requirements, financial support and specific research projects may be obtained from:

The Times for Admissions (FT)  
 SCHOOL OF MECHANICAL ENGINEERING  
 Cranfield Institute of Technology  
 Bedford Road, Bedford, Bedfordshire, MK43 0EJ



MANAGING ENERGY III

needs

Advice from the suppliers

Government is to have been in the forefront of asking anything the promotion of energy conservation in the service and effective fuel wasted energy, management.

the country is Advisory services of one sort or another are a factor common to all the supply industries—conservation and fuel management have after all become inextricably caught up with the marketing, sales and promotion of the various fuels—but British Gas has gone one better, perhaps, than its rivals with the establishment of a special School for Fuel Management.

The school has made rapid progress since it was first established at the research station of British Gas' Midlands Region at Solihull. In the first year of its operations alone, more than 1,000 directors, senior executives, managers and other representatives of the business world and public organisations attended its courses, either at the school itself, or at sessions throughout the country. The school was quickly established after the beginning of the Save It campaign, but British Gas points out that it grew out of the extensive research programme which the corporation was already mounting in attempts to achieve maximum efficiency for its fuel. The range of courses offered are aimed at meeting the needs of different sectors of management. The first, for senior executives, provides an overall appreciation of the U.K. and world energy situation and points out immediate economies which can be made without capital outlay. Another course caters specifically for the fuel managers and energy conservation officers, and lays great stress on measures which can produce fuel economies at grass roots on the factory floor or in the office. The use of energy is physically controlled. Industry and commerce account for about 40 per cent. of the nation's energy bill, and although some industries, such as chemicals, have made considerable savings already, the Government feels that there is still a long way to go. Organisations often delay taking energy saving measures because they doubt that such actions are cost-effective, but plenty of evidence has been evolved to show that investment in energy conservation can involve remarkably short pay-back periods. It was largely to highlight the scope and range of savings industry could achieve that British Gas introduced its Gas Energy Management (Gem) award last year. The second Gem award will be presented later this autumn and the winner has not yet been chosen. But the short-

MARKET SHARES OF OIL, GAS, ELECTRICITY AND COAL ON HEAT SUPPLIED BASIS

	Industrial		Domestic	
	1976	1966	1976	1966
OIL	38%	39%	10%	7%
GAS	27%	4%	42%	15%
ELECTRICITY	12%	9%	20%	14%
COAL	23%	46% (1964)	28%	64% (1964)

Source: Dept. of Energy Digest of U.K. Energy Statistics 1977.

ally for the fuel managers and energy conservation officers, and lays great stress on measures which can produce fuel economies at grass roots on the factory floor or in the office. The use of energy is physically controlled. Industry and commerce account for about 40 per cent. of the nation's energy bill, and although some industries, such as chemicals, have made considerable savings already, the Government feels that there is still a long way to go. Organisations often delay taking energy saving measures because they doubt that such actions are cost-effective, but plenty of evidence has been evolved to show that investment in energy conservation can involve remarkably short pay-back periods. It was largely to highlight the scope and range of savings industry could achieve that British Gas introduced its Gas Energy Management (Gem) award last year. The second Gem award will be presented later this autumn and the winner has not yet been chosen. But the short-

Courses

At a lower level of sophistication, the School of Fuel Management has also designed and packaged a series of courses which can be run by local staff in the British Gas regions. It is designed for works managers, plant engineers and supervisors, and lays great stress on measures which can produce fuel economies at grass roots on the factory floor or in the office. The use of energy is physically controlled. Industry and commerce account for about 40 per cent. of the nation's energy bill, and although some industries, such as chemicals, have made considerable savings already, the Government feels that there is still a long way to go. Organisations often delay taking energy saving measures because they doubt that such actions are cost-effective, but plenty of evidence has been evolved to show that investment in energy conservation can involve remarkably short pay-back periods. It was largely to highlight the scope and range of savings industry could achieve that British Gas introduced its Gas Energy Management (Gem) award last year. The second Gem award will be presented later this autumn and the winner has not yet been chosen. But the short-

listed companies have easily out-performed the hopeful candidates of 1976, when the top 15 companies achieved savings of well over 2m. therms a year, enough gas to supply 4,000 homes.

The candidates for this year's Gem award offer diverse approaches to the issue of energy conservation, but they have in common the factor that a positive approach to fuel management cannot only cut down fuel bills, but also just as importantly bring major improvements in productivity and output. One idea developed jointly by British Gypsum part of BPE Industries and the East Midlands Region of British Gas, for instance, sets out to improve the basic calculation production process after gypsum-bearing rock has been separated and crushed in a fine powder. A prototype production unit evolved by the two sides increased output over traditional methods by 85 per cent, and additionally improved fuel use by 20 per cent. International patents have already been granted to British Gypsum in some countries while other applications are still pending.

British Gas, which traditionally has had to compete in industrial markets against cheaper, less efficient fuels, has of course been ideally placed to devote considerable resources towards the achievement of maximum fuel economy. But according to Mr. Peter King, head of the School of Fuel Management, many organisations

each application. "For too long shows, and any improvement in past prejudices have been allowed to colour this decision," says Mr. King. "Steam, for instance, should generally be phased out and consideration given to direct firing."

Ever since the energy crisis the electricity industry has been urging its customers to "use electricity wisely," and this has been perhaps the kernel of the Electricity Council's policy rather than simply exhorting customers to use less. It has been active in developing more efficient process applications in industry with emphasis focusing on such areas as beat recovery, metal melting, effluent treatment, and beating and re-heating in steel mills.

The coal industry has clearly convincing companies that the lost considerable ground in the right place should be selected for market place, as the table

Kevin Done

TALKING OF ENERGY...

Marks & Spencer responded to Britain's energy crisis in 1974 quickly and effectively. Consumption was reduced, wastage checked, economies made in the use of light, heat and water.

In fact, Marks & Spencer really 'saved it'.

That crisis was only the tip of the iceberg. And it was only Marks & Spencer's first step in a long-term energy conservation policy.

In the past three years Marks & Spencer have saved nearly £4 million by the careful conservation of electricity and gas. The installation of more efficient sources of light has reduced lighting expenditure by 30%. Innovations include better building insulation and more efficient refrigeration plant.

Today, Marks & Spencer are amongst the leaders in energy saving, not only in Britain but throughout the World. Companies around Europe and from even further afield come to us for advice.

Energy is a scarce and valuable commodity.

Marks & Spencer will continue to explore new ways of 'saving it'.

MARKS & SPENCER



-the company that cares

Roy Hodson

Advances in electricity

difficult post-wards. Instead demand for electricity has actually fallen over cuts and since the peak of 1974-75.

As for demand, the Electricity Council in March this year adopted a level of 51,500 mW as the likely peak winter demand for 1983-84. That compares with a winter peak of 42,000 mW during the winter of 1976-77. The council is reckoning upon a growth in electricity usage of 8 per cent. a year between now and 1984—a rate far below the heady growth of ten per cent. a year and more experienced in the 1950s and the 1960s.

The CEGB is very pleased with the high performance of its eight Magnox nuclear power stations—the first generation stations—which have contributed more than 220,000m. kWh to the national grid. They are now producing electricity at 40 per cent. below the cost of oil-fired power stations and 30 per cent. below the cost of coal-fired power stations. The advanced gas-cooled reactors are expected to produce electricity even more cheaply. The first CEGB station—Hinkley Point B—is working smoothly and has produced the cheapest nuclear-generated electricity of any station during its first year.

There is no doubt that the CEGB will wish to swing more decisively towards nuclear generation when it is in a position to begin a new forward ordering power programme. Much will depend upon that it recognises the

the outcome of the present debate about the type of reactor design to be adopted for the next nuclear power station generation.

One result of the CEGB's present surplus of power stations is that it enjoys a greater flexibility in its choice of fuels than it has ever enjoyed in the past. And it recognises that it must remain competitive. There are some industries—aluminium and chemicals being two examples—which are so power hungry that they can only afford to operate in Britain if power costs are kept competitive in relation to what they would have to pay in Europe and other parts of the world.

Essential

The view of the Electricity Council is that Britain is better placed than most industrialised countries with regard to indigenous supplies of fossil fuel and that for the next ten years or so supplies of coal, oil, and natural gas will be more than sufficient to meet home demand. Beyond that nuclear power is regarded as essential to augment fossil fuels in Britain. There are forecasts that it might be necessary to bring nuclear plant into service during the 1990s at a rate of some 4,000 MW a year. The Electricity Council stated recently that it recognises the

environmental problems posed by that sort of estimate. But in the council's opinion it is important to recognise also that the timescales for planning and building nuclear plant are such that, "a start will have to be made very soon if there is to be any hope of achieving a rate of commissioning of nuclear plant which exceeds that which has been possible in the past for conventional plant."

But the stations presently under construction are mostly several years behind schedule. The problems have centred around the slowness of erecting the large engineering plant—boilers and generators—rather than the civil engineering side of the work. But there has been some improvement recently. At the troubled Isle of Grain power station site where work stopped completely on sections for more than five months last year the company mainly involved, Babcock and Wilcox—is now achieving productivity at least twice as good as before the dispute.

However, the slowness of construction of big engineering plant on site remains a major headache. The electricity authorities must take it into account when drawing up their medium and long-term plans for new British power stations.

John installs natural gas central heating the age of thirty the year 2000, he will use natural gas which have already bought



Nobody knows what will happen in twenty or thirty years. But one thing is for sure: we'll need a lot of energy. That's why we buy gas for the years beyond 2000 today.

But the job of providing secure natural gas supplies now and in the future doesn't end here. Natural gas transmission systems are needed. We construct and operate them alone and together with other companies. Buried pipelines, which do not harm the environment, cross West Germany and link it with other countries. We develop new technologies for the transmission and storage of natural gas. We are, together with others, involved in coal gasification research.

We do quite a lot for the future. Because all the Johns in our country will need natural gas in 2000 and beyond.

RUHRGAS Aktiengesellschaft Essen

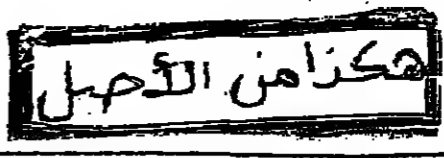


We take care of natural gas









AUTHORISED UNIT TRUSTS

OFFSHORE AND OVERSEAS FUNDS

Table listing various unit trusts and funds, including Brown Shipley & Co. Ltd., Guardian Royal Ex. Unit Mgrs. Ltd., and others, with columns for fund names and numerical values.

Table listing offshore and overseas funds, including Fidelity Mgmt. & Res. (Sd.) Ltd., Kemp-Gee Management Jersey Ltd., and others, with columns for fund names and numerical values.

ed 01-351 3468. Three-month Lead 343-347 trading on commodity futures modify futures market for the smaller investor

AL TIMES STOCK INDICES

Table showing stock indices with columns for date, index value, and percentage change.

IS AND LOWS S.E. ACTIVITY

Table showing market activity with columns for date, high, low, and other metrics.

ACTUARIES INDICES

Table showing actuarial indices with columns for date, index value, and percentage change.

INSURANCE, PROPERTY, BONDS

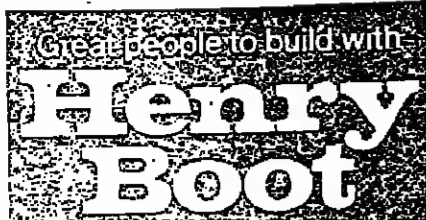
Large advertisement for insurance, property, and bonds, featuring various company logos and detailed text about services and products.

State 'should pay port expenses' THE MERSEYSIDE Chamber of Commerce and Industry has called for shifting of financial responsibility for dredging and other port charges from port authorities to central Government to achieve a uniform policy in the E.C.C.

In a letter to Merseyside MPs the Chamber says Britain is the only EEC country where most navigational aids are paid for by port authorities, making them more expensive than on the Continent.

INSURANCE BASE RATES Property Growth 4.0% Cannon Assurance 4.0% etc.





Henry Boot Construction Limited Sheffield Tel: 0246-410111

FT SHARE INFORMATION SERVICE

HOTELS—Continued

Table with columns: Dividend, Stock, Price, Last, etc. for various hotel companies.

INDUSTRIALS (Misc.)

Table with columns: Dividend, Stock, Price, Last, etc. for various industrial companies.

ENGINEERING—Continued

Table with columns: Dividend, Stock, Price, Last, etc. for various engineering companies.

DRAPERY AND STORES—Cont.

Table with columns: Dividend, Stock, Price, Last, etc. for various drapery and stores companies.

BUILDING INDUSTRY—Cont.

Table with columns: Dividend, Stock, Price, Last, etc. for various building industry companies.

AMERICANS—Continued

Table with columns: Dividend, Stock, Price, Last, etc. for various American companies.

CANADIANS

Table with columns: Dividend, Stock, Price, Last, etc. for various Canadian companies.

BANKS AND HIRE PURCHASE

Table with columns: Dividend, Stock, Price, Last, etc. for various banks and hire purchase companies.

ELECTRICAL AND RADIO

Table with columns: Dividend, Stock, Price, Last, etc. for various electrical and radio companies.

CHEMICALS, PLASTICS

Table with columns: Dividend, Stock, Price, Last, etc. for various chemicals and plastics companies.

ENGINEERING MACHINE TOOLS

Table with columns: Dividend, Stock, Price, Last, etc. for various engineering machine tools companies.

FOOD, GROCERIES, ETC.

Table with columns: Dividend, Stock, Price, Last, etc. for various food and grocery companies.

CINEMAS, THEATRES AND TV

Table with columns: Dividend, Stock, Price, Last, etc. for various cinema, theatre, and TV companies.

DRAPERY AND STORES

Table with columns: Dividend, Stock, Price, Last, etc. for various drapery and stores companies.

BUILDING INDUSTRY, TIMBER AND ROADS

Table with columns: Dividend, Stock, Price, Last, etc. for various building industry, timber, and roads companies.

HOTELS AND CATERERS

Table with columns: Dividend, Stock, Price, Last, etc. for various hotels and caterers companies.

BRITISH FUNDS

Table with columns: Share, Price, Last, etc. for various British funds.

Five to Fifteen Years

Table with columns: Share, Price, Last, etc. for various five to fifteen year funds.

Over Fifteen Years

Table with columns: Share, Price, Last, etc. for various over fifteen year funds.

Updated

Table with columns: Share, Price, Last, etc. for various updated funds.

INTERNATIONAL BANK

Table with columns: Share, Price, Last, etc. for various international banks.

CORPORATION LOANS

Table with columns: Share, Price, Last, etc. for various corporation loans.

COMMONWEALTH & AFRICAN FUNDS

Table with columns: Share, Price, Last, etc. for various commonwealth and African funds.

LOANS (Misc.)

Table with columns: Share, Price, Last, etc. for various miscellaneous loans.

FOREIGN BONDS & RAIS

Table with columns: Share, Price, Last, etc. for various foreign bonds and rais.

AMERICANS

Table with columns: Share, Price, Last, etc. for various American companies.

Handwritten signature or mark at the bottom of the page.



RIALS-Continued

Table of RIALS-Continued with columns for Price, Last, Bid, Offer, and various stock symbols.

INSURANCE-Continued

Table of INSURANCE-Continued with columns for Dividend, Stock, Price, Last, Bid, Offer, and various insurance company symbols.

PROPERTY-Continued

Table of PROPERTY-Continued with columns for Dividend, Stock, Price, Last, Bid, Offer, and various property-related symbols.

TRUSTS-Continued

Table of TRUSTS-Continued with columns for Dividend, Stock, Price, Last, Bid, Offer, and various trust-related symbols.

TRUSTS-Continued

Table of TRUSTS-Continued with columns for Dividend, Stock, Price, Last, Bid, Offer, and various trust-related symbols.

SANWA BANK Tokyo, Japan. Serving the world with financial expertise.

MINES-Continued

Table of MINES-Continued with columns for Dividend, Stock, Price, Last, Bid, Offer, and various mine-related symbols.

AUSTRALIAN

Table of AUSTRALIAN with columns for Dividend, Stock, Price, Last, Bid, Offer, and various Australian-related symbols.

TINS

Table of TINS with columns for Dividend, Stock, Price, Last, Bid, Offer, and various tin-related symbols.

COPPER

Table of COPPER with columns for Dividend, Stock, Price, Last, Bid, Offer, and various copper-related symbols.

MISCELLANEOUS

Table of MISCELLANEOUS with columns for Dividend, Stock, Price, Last, Bid, Offer, and various miscellaneous symbols.

NOTES

Unless otherwise indicated, prices and net dividends are in pence and are based on the latest published reports and accounts.

TEAS

Table of TEAS with columns for Dividend, Stock, Price, Last, Bid, Offer, and various tea-related symbols.

INDIA AND BANGLADESH

Table of INDIA AND BANGLADESH with columns for Dividend, Stock, Price, Last, Bid, Offer, and various Indian and Bangladeshi symbols.

SRI LANKA

Table of SRI LANKA with columns for Dividend, Stock, Price, Last, Bid, Offer, and various Sri Lankan symbols.

AFRICA

Table of AFRICA with columns for Dividend, Stock, Price, Last, Bid, Offer, and various African symbols.

MINES

Table of MINES with columns for Dividend, Stock, Price, Last, Bid, Offer, and various mine-related symbols.

CENTRAL RAND

Table of CENTRAL RAND with columns for Dividend, Stock, Price, Last, Bid, Offer, and various Central Rand symbols.

EASTERN RAND

Table of EASTERN RAND with columns for Dividend, Stock, Price, Last, Bid, Offer, and various Eastern Rand symbols.

FAR WEST RAND

Table of FAR WEST RAND with columns for Dividend, Stock, Price, Last, Bid, Offer, and various Far West Rand symbols.

REGIONAL MARKETS

The following is a selection of London quotations of shares previously listed only in regional markets.

O.F.S.

Table of O.F.S. with columns for Dividend, Stock, Price, Last, Bid, Offer, and various O.F.S. symbols.

FINANCE

Table of FINANCE with columns for Dividend, Stock, Price, Last, Bid, Offer, and various finance-related symbols.

DIAMOND AND PLATINUM

Table of DIAMOND AND PLATINUM with columns for Dividend, Stock, Price, Last, Bid, Offer, and various diamond and platinum symbols.

OPTIONS

Table of OPTIONS with columns for Dividend, Stock, Price, Last, Bid, Offer, and various option-related symbols.

3-month Call rates

Table of 3-month Call rates with columns for Dividend, Stock, Price, Last, Bid, Offer, and various call rate symbols.

RECENT ISSUES

Table of RECENT ISSUES with columns for Dividend, Stock, Price, Last, Bid, Offer, and various recent issue symbols.

RIGHTS

Table of RIGHTS with columns for Dividend, Stock, Price, Last, Bid, Offer, and various rights-related symbols.

RECENT ISSUES AND RIGHTS

This service is available to every Company dealt in on the London Stock Exchange for an annual fee of £200 per annum for each security.



